EPA Question	Response	Records/Information Available
Section 1.0 - Respondent Information		
1. Provide the full legal, registered name and mailing address of Respondent.	Portland General Electric Company 121 SW Salmon Street Portland, OR 97204	
2. For each person answering these questions on behalf of Respondent, provide:		
Site Operator: Portland General Electric		
a. full name;	Arya Behbehani-Divers	
b. title;	Manager, Environmental Services	
c. business address; and	121 SW Salmon Street m/s 3WTCBR05 Portland, OR 97204	
d. business telephone number, electronic mail address, and FAX machine number.	Business Telephone Number: 503-464-8141 Electronic Mail Address: Arya.Behbehani-Divers@pgn.com Fax Number: 503-464-8527	
Site Consultant: URS Corporation		
a. full name;	Laura McWilliams, PhD, L.G.; Danni Kline	
b. title;	Senior Geologist; Ecologist; Senior Environmental Scientist	
c. business address: and	111 SW Columbia, Suite 1500 Portland, OR 97225-5850	
d. business telephone number, electronic mail address, and FAX machine number.	Business Telephone Number: 503-222.7200 Electronic Mail Address: Laura_McWilliams@urscorp.com; Danni_Kline@urscorp.com Fax Number: 503-222.4292	
3. If Respondent wishes to designate an individual for all future correspondence concerning this Site, please indicate here by providing that individual's name, address, telephone number, fax number, and, if available, electronic mail address.	Arya Behbehani-Divers Portland General Electric Manager, Environmental Services 121 SW Salmon Street - 3WTCBR05 Portland, OR 97204 Tel: 503-464-8141 Fax: 503-464-8527 Electronic Mail Address: Arya.Behbehani-Divers@pgn.com	
Section 2.0 - Owner/Operator Information		

EPA Question	Response	Records/Information Available
4. Identify each and every Property that Respondent currently owns, leases, operates on, or otherwise is affiliated or historically has owned, leased, operated on, or otherwise been affiliated with within the Investigation Area during the period of investigation (1937 to Present). Please note that this question includes any aquatic lands owned or leased by Respondent.	Portland General Electric Company (PGE) is preparing separate 104(e) responses for properties within the Investigation Area. This response only applies to the Riverview Substation, located at 600 SW Taylors Ferry Road, Portland, Oregon, and adjacent parcels. As shown in the attached plat (Q04a_RiverviewPlat.pdf), this response includes two parcels currently owned by PGE and a third parcel historically owned by PGE. These are referred to herein as Parcels A through C and are described as follows: Parcel A - the currently-owned, developed parcel that includes the Riverview Substation Parcel B – historically-owned, undeveloped parcel west of the Riverview Substation Parcel C – currently-owned, undeveloped, vegetated area south of the Riverview Substation As defined herein, "the site", "the property", "the facility", "the substation," and "Riverview Substation" all refer exclusively to Parcel A. The responses to the majority of these questions are applicable only to Parcel A. For questions that are applicable to all the parcels, individual answers are listed for each.	
a. Currently Owns	PGE currently owns the Riverview Substation (Parcel A) and the adjacent, undeveloped parcel (Parcel C). The Riverview Substation is bounded by SW Taylors Ferry Road to the west, Virginia Avenue to the north, and SW Macadam Avenue to the east. See the attached plat (Q04a_RiverviewPlat.pdf).	Question 4 Attachment Q04a_RiverviewPlat.pdf
b. Currently Leases	Not applicable. PGE does not lease the Riverview Substation (Parcel A) or the adjacent, undeveloped parcel (Parcel C).	
c. Currently Operates	PGE currently operates the Riverview Substation (Parcel A).	
d. Currently otherwise affiliated with	Not applicable. There are no other properties currently affiliated with the Riverview Substation (Parcel A) or the adjacent, undeveloped parcel (Parcel C).	
e. Historically Has Owned	PGE historically owned a third Riverview parcel (Parcel B); see the plat (Q04a_RiverviewPlat.pdf) attached in response to Question 4a. PGE purchased Parcel B on 17 February, 1959 from C.J. & Helen E. Ireland. To the best of PGE's knowledge, after reasonable inquiry, PGE never developed the parcel. PGE sold the undeveloped property to Jeff Clark and Kent Krafve on 29 March 1987. See the documents (Q07_1959 Irelan BSDeed.pdf and Q07_1987 Krafve BSDeed.pdf) attached in response to Question 7. Other properties that PGE has historically owned within the Investigation Area are addressed in separate 104(e) responses.	Question 4 Attachment Q04a_RiverviewPlat.pdf Also see Question 7 Attachments Q07_1959 Irelan BSDeed.pdf Q07_1987 Krafve BSDeed.pdf
f. Historically Has Leased	To the best of PGE's knowledge, after reasonable inquiry, PGE did not historically lease the Riverview Substation (Parcel A), the historically-owned parcel (Parcel B), or the currently-owned, undeveloped parcel (Parcel C) prior to purchase.	
g. Historically Has Operated	Not applicable. There are no known properties that PGE historically operated on but did not own in association with the Riverview Substation (Parcel A).	
h. Historically otherwise affiliated with	Other than the undeveloped parcel (Parcel B) described in response to Question 4e, the Riverview Substation (Parcel A) and the currently-owned, undeveloped parcel (Parcel C) have not been affiliated with any other properties.	

EPA Question	Response	Records/Information Available
5. Provide a brief summary of Respondent's relationship to each Property listed in response to Question 4 above, including the address, Multnomah County Alternative Tax lot Identification number(s), dates of acquisition, period of ownership, lease, operation, or affiliation, and a brief overview of Respondent's activities at the Properties identified.		
a. Relationship	Current owner (Parcels A and C) and historical owner (Parcel B)	
b. Address	The addresses for the Riverview parcels are: Parcel A – Riverview Substation: 600 SW Taylors Ferry Road, Portland, OR 97219 Parcel B – Historically-owned parcel: 7606 SW Fulton Park Blvd, Portland OR 97219 Parcel C – Currently-owned, undeveloped parcel: no address is associated with this parcel	
c. Multnomah County Alternative Tax ID #	The Multnomah County alternative tax ID numbers for the Riverview parcels are: Parcel A – Riverview Substation: R991220330 and R991220190 Parcel B – Historically-owned parcel: R300405510 Parcel C – Currently-owned, undeveloped parcel: R991220590 See the attached documents and the document (Q04a_RiverviewPlat.pdf) attached in response to Question 4a.	Question 5 Attachments Q05c_Tax Map.pdf Q05c_Property Details.pdf Also see Question 4 Attachment Q04a_RiverviewPlat.pdf
d. Date Acquired (leased)	The date PGE acquired the Riverview parcels was: Parcel A – The Riverview Substation was purchased by PGE on 9 February, 1949 from the Riverview Cemetery Association. Parcel B – Historically-owned parcel was purchased by PGE on 17 February, 1959 from C.J. & Helen E. Ireland. To the best of PGE's knowledge, after reasonable inquiry, PGE never developed Parcel B. PGE sold the undeveloped property to Jeff Clark and Kent Krafve on 29 March. 1987. Parcel C – The currently-owned, undeveloped parcel was purchased by PGE on 6 May, 1959 from the Riverview Cemetery Association. See the document attached in response to Question 4a and the documents attached in	See Question 4 Attachment Q04a_RiverviewPlat.pdf Also see all Question 7 Attachments

EPA Question	Response	Records/Information Available
	response to Question 7.	
e. Period of Lease	Not applicable. PGE is the current owner of the Riverview Substation (Parcel A), the historical owner of the adjacent parcel (Parcel B), and the current owner of the adjacent, undeveloped parcel (Parcel C).	
f. Period of Ownership, Lease or Operation	The period of PGE ownership for the Riverview parcels is: Parcel A – Riverview Substation: 1949 to present. Parcel B – Historically-owned parcel: 1950 to 1978. Parcel C – Currently-owned, undeveloped parcel: 1959 to present	
g. Activities	The following describes the PGE activities at the Riverview parcels: Parcel A - In 1949, the Riverview Substation property was purchased by PGE from the Riverview Cemetery Association. Since then, the substation has undergone equipment upgrades and modifications, as needed. PGE has used the property exclusively for substation operations since 1962. The Riverview Substation Purpose: • Provide continuous electrical power to customers; and • Protect public and equipment from electrical and mechanical faults. The Riverview Substation Function: As a distribution substation – engineered and crafted collection of high voltage equipment, which transforms higher sub-transmission voltage (115kv) to lower distribution voltage (13kv). High voltage switches and circuit breakers allow the circuits to be safely opened for routine maintenance or to interrupt electrical faults. Automatic operation is achieved through control, protection, telemetry, and communication systems located within the substation. As such, on-site activities are limited to maintenance, repair, and replacement of substation components as they are needed. Parcel B - In 1959, PGE purchased the parcel. To the best of PGE's knowledge, after reasonable inquiry, PGE never developed or operated on this parcel. PGE sold the undeveloped property in 1987. Parcel C - In 1959, PGE purchased the adjacent parcel However, to the best of PGE's knowledge, after reasonable inquiry, PGE has not developed or operated on this parcel.	
6. Identify any persons who concurrently with you exercises or exercised actual control or who held significant authority to control activities at each Property, including:		
a. partners or joint ventures;	To the best of PGE's knowledge, after reasonable inquiry, no known partners or joint ventures have/had exercised actual control or held significant authority to control activities at the	

EPA Question	Response	Records/Information Available
	Riverview Substation (Parcel A), the historically-owned parcel (Parcel B), or the currently-owned, undeveloped parcel (Parcel C).	
b. any contractor, subcontractor, or licensor that exercised control over any materials handling, storage, or disposal activity on the Property; (service contractors, remediation contractors, management and operator contractors, licensor providing technical support to licensed activities);	Parcel A - To the best of PGE's knowledge, after reasonable inquiry, no consultants or subcontractors have exercised control over any materials handling, storage, or disposal activities at the Riverview Substation. Parcel B - To the best of PGE's knowledge, after reasonable inquiry, there have been no activities conducted on the historically-owned parcel by PGE personnel, consultants, or subcontractors, including any activities related to materials handling, storage, or disposal during PGE ownership. Parcel C - To the best of PGE's knowledge, after reasonable inquiry, there have been no activities conducted on the currently-owned, undeveloped parcel by PGE personnel, consultants, or subcontractors, including any activities related to materials handling, storage, or disposal.	
c. any person subleasing land, equipment or space on the Property;	To the best of PGE's knowledge, after reasonable inquiry, there are/were no subleases for land, equipment, or space at the Riverview Substation (Parcel A), the historically-owned parcel (Parcel B) during PGE ownership, or the currently-owned, undeveloped property (Parcel C).	
d. utilities, pipelines, railroads and any other person with activities and/or easements regarding the Property;	To the best of PGE's knowledge, after reasonable inquiry, there are/were no other utilities, pipelines, railroads, or easements on the Riverview Substation (Parcel A), the historically owned parcel (Parcel B) during PGE ownership, or the currently-owned, undeveloped parcel (Parcel C) other than PGE utilities on the Riverview Substation (Parcel A). Structures installed at the Riverview Substation (Parcel A) by PGE are described in the response to Question 13b.	See Question 4 Attachment Q04a_RiverviewPlat.pdf
e. major financiers and lenders;	Not applicable. None have been identified.	
f. any person who exercised actual control over any activities or operations on the Property;	To the best of PGE's knowledge, after reasonable inquiry, only PGE personnel (see responses to Questions 6g and 6h) have exercised actual control over activities or operations at the Riverview Substation (Parcel A).	
g. any person who held significant authority to control any activities or operations on the Property;	Multiple individuals have had authority within PGE to access and conduct activities at the Riverview Substation (Parcel A). Many are listed on the following documents: • Bullseye articles 1956, 1957, 1958, 1959, 1960, 1961, 1963, 1967, 1971, 1973 and 1980. • Organizational charts for the years: 1980, 1982, 1984, 1986, 1988, 1989, 1990, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, and 2005. • Distribution and System Planning information. • Management structure information 1982-2007.	Question 6 Attachments Q06g_Bullseye articles.pdf Q06g_Organizational Charts.pdf Q06g_Distribution and System Planning Information.pdf Q06g_HRIC Structure Report 2008.pdf Q06g_HRIS Structure Info 1982-2007.pdf
h. any person who had a significant presence or who conducted significant activities at the Property; and	Multiple individuals have had authority within PGE to access and conduct activities at the Riverview Substation (Parcel A). Many are listed on the following documents: • Bullseye articles 1956, 1957, 1958, 1959, 1960, 1961, 1963, 1967, 1971, 1973 and 1980. • Organizational charts for the years: 1980, 1982, 1984, 1986, 1988, 1989, 1990, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, and 2005 • Distribution and System Planning information. • Management structure information 1982-2007 To the best of PGE's knowledge, after reasonable inquiry, no party other than PGE and its staff, has had a significant presence or conducted significant activities at the parcels after PGE	See all Question 6g Attachments

EPA Question	Response	Records/Information Available
	acquired them and during PGE's ownership. See the documents attached in response to Question 6g.	
i. government entities that had proprietary (as opposed to regulatory) interest or involvement with regard to the activity on the Property.	To the best of PGE's knowledge, after reasonable inquiry, no government entities have (or had) a proprietary interest or involvement at the Riverview Substation (parcel A) or the currently-owned, undeveloped parcel (Parcel C), the since their acquisition by PGE. To the best of PGE's knowledge, after reasonable inquiry, no government entities had a proprietary interest or involvement at the historically-owned parcel (Parcel B) while PGE owned the parcel.	
Section 2.0 - Owner/Operator Information (continued)		
7. Identify and describe any legal or equitable interest that you now have, or previously had in each Property. Include information regarding the nature of such interest: when, how, and from whom such interest was obtained; and when, how, and to whom such interest was conveyed, if applicable. In addition, submit copies of all instruments evidencing the acquisition or conveyance of such interest (e.g., deeds, leases, purchase and sale agreements, partnership agreements, etc.). Also provide all information and documentation regarding, but not limited to the following:	The document (Q04a_RiverviewPlat.pdf) attached in response to Question 4a indicates when and from whom the Riverview parcels (Parcel A, Parcel B, and Parcel C) were purchased by PGE. The following is a summary and identifies the applicable attached deeds: Parcel A - The Riverview Substation parcel was purchased on 9 February, 1949 from the Riverview Cemetery Association; see the attached deed (Q07_1949 Riverview Cemetery Deed.pdf). Parcel B – The historically-owned parcel was purchased on 17 February 1959 from C.J. & Helen Ireland; see the attached deed (Q07_1959 Irelan BSDeed.pdf). To the best of PGE's knowledge, after reasonable inquiry, PGE never developed the parcel. PGE sold the undeveloped property on 29 March, 1987 to Jeff P Clark and Kent B Krafve; see the attached deed (Q07_1987 Krafve BSDeed.pdf). Parcel C - The currently-owned, undeveloped parcel was purchased on 6 May, 1959 from the Riverview Cemetery Association; see the attached deed (Q07_1959 Riverview Cemetery Association Deed .pdf). Also see the responses to Questions 4 and 5, above.	Question 7 Attachments Q07_1959 Riverview Cemetery Association Deed .pdf Q07_1959 Irelan BSDeed.pdf Q07_1949 Riverview Cemetery Deed.pdf Q07_1987 Krafve BSDeed.pdf Also see Question 4 Attachment Q04_RiverviewPlat.pdf
a. any deeds and/or transfer information between Respondent and Dulien Steel Products;	Not applicable. Question 7a is relevant only to the Rivergate North Substation. Information regarding this question is given in the 104(e) response letter for that site.	
b. deed and title information for Parcels R971340160, R971340180, R971350100, R971350480, R941191230, R971340130 and R971340200;	Not applicable to the Riverview Substation.	
c. a complete copy of the Memorandum of Contract Book 1292 p.616 for parcel R941191230, dated September 5, 1978;	Not applicable to the Riverview Substation.	

EPA Question	Response	Records/Information Available
8. If you are the current owner and/or current operator, did you acquire or operate the Property or any portion of the Property after the disposal or placement of hazardous substances, waste, or materials on, or at the Property? Describe all of the facts on which you base the answer to this question.	To the best of PGE's knowledge, after reasonable inquiry, PGE did not know of, and had no reason to know of, the disposal or placement of hazardous substances, waste, or materials on or at any part of the Riverview parcels (Parcels A, Parcel B and Parcel C) that may have occurred prior PGE's acquisition of these parcels. To the best of PGE's knowledge, after reasonable inquiry, no site investigations were performed on the Riverview parcels prior to PGE taking ownership.	
9. At the time you acquired or operated the Property, did you know or have reason to know that any hazardous substance, waste, or material was disposed of on, or at the Property? Describe all investigations of the Property you undertook prior to acquiring the Property and all of the facts on which you base the answer to this question.	To the best of PGE's knowledge, after reasonable inquiry, PGE did not know of, and had no reason to know of, the disposal or placement of hazardous substances, waste, or materials on or at any part of the Riverview parcels (Parcels A, Parcel B and Parcel C) that may have occurred prior PGE's acquisition these parcels. To the best of PGE's knowledge, after reasonable inquiry, no site investigations were performed on the Riverview parcels prior to PGE taking ownership.	
10. Identify all prior owners that you are aware of for each Property identified in Response to Question 4 above. For each prior owner, further identify if known: a. The dates of ownership b. All evidence showing that they controlled access to the Property c. All evidence that a hazardous substance, pollutant, or contaminant was released or threatened to be released at the Property during the period that they owned the Property.	To the best of PGE's knowledge, after reasonable inquiry, the following summarizes the information PGE has regarding all prior owners for the Riverview parcels (Parcel A, Parcel B, and Parcel C). Parcel A - PGE purchased the Riverview Substation parcel on 9 February, 1949 from the Riverview Cemetery Association. See the document (Q04_RiverviewPlat.pdf) attached in response to Question 4a and the document (Q07_1949 Riverview Cemetery Deed.pdf) attached in response to Question 7. The Sanborn map of the area in 1970 depicts PGE's use of Parcel A as a substation (Q10_Riverview Sanborn Maps.pdf). To the best of PGE's knowledge, after reasonable inquiry, PGE has no information regarding the Riverview Cemetery Association's activities on Parcel A. Parcel B - PGE purchased the historically-owned parcel on 17 February 1959 from C.J. & Helen Ireland; see the deed (Q07_1959 Irelan BSDeed.pdf) attached in response to Question 7. To the best of PGE's knowledge, after reasonable inquiry, PGE never developed the parcel. PGE sold the undeveloped property on 29 March, 1987 to Jeff P Clark and Kent B Krafve; see the deed (Q07_1987 Krafve BSDeed.pdf) attached in response to Question 7. To the best of PGE's knowledge, after reasonable inquiry, PGE has no information regarding the activities of the owners prior to PGE, C.J. & Helen E. Ireland. Parcel C – PGE purchased the currently-owned, undeveloped parcel (Parcel C) on 6 May, 1959 from the Riverview Cemetery Association. See the document (Q04_RiverviewPlat.pdf) attached in response to Question 4a and the document	Question 10 Attachment Q10_Riverview Sanborn Maps.pdf Also see Question 4 Attachment Q04_RiverviewPlat.pdf Also see all Question 7 Attachments

EPA Question	Response	Records/Information Available
	(Q07_1959 Riverview Cemetery Association Deed .pdf) attached in response to Question 7. To the best of PGE's knowledge, after reasonable inquiry, PGE has no information regarding the Riverview Cemetery Association's activities on Parcel C. To the best of PGE's knowledge, after reasonable inquiry, no site investigations were performed on the Riverview parcels (Parcel A, Parcel B, and Parcel C) prior to taking ownership. To the best of PGE's knowledge, after reasonable inquiry, PGE has no knowledge of a hazardous substance, pollutant, or contaminant that was released or threatened to be released on the Riverview parcels prior to PGE's purchase.	
11. Identify all prior operators of the Property, including lessors, you are aware of for each Property identified in response to Question 4 above. For each such operator, further identify if known: a. the dates of operation; b. the nature of prior operations at the Property; c. all evidence that they controlled access to the Property; and d. all evidence that a hazardous substance, pollutant, or contaminant was released or threatened to be released at or from the Property during the period that they were operating the Property	See the responses to Questions 4 through 6 and Question 10. In addition, see the document (Q04a_RiverviewPlat.pdf) attached in response to Question 4 and the documents attached in response to Question 7. To the best of PGE's knowledge, after reasonable inquiry, PGE does not have information on prior operations on the Riverview parcels (Parcel A, Parcel B, and Parcel C) other than the information contained in the response to Question 10, above.	See Question 4 Attachment Q04a_RiverviewPlat.pdf Also see all Question 7 Attachments
12. If not included in response to any of the previous questions, please describe the purpose and duration of each aquatic lands lease Respondent or the operator of Respondent's Property(ies) ever obtained from the State of Oregon and provide a copy of each application for and aquatic lands lease obtained.	Not applicable. There is no aquatic lands lease associated with this Property. See the response for Question 4.	
Section 3.0 - Description of Each Property		
13. Provide the following information about each Property identified in response to Question 4:	The responses to the questions in Sections 3.0, 4.0, 5.0, and 6.0 only pertain to the Riverview Substation (Parcel A), on which PGE developed and had/has substation operations. The adjacent, currently-owned parcel (Parcel C) is undeveloped. The historically-owned parcel (Parcel B) was, to the best of PGE's knowledge, after reasonable inquiry, never developed or operated on prior to selling the parcel.	

EPA Question	Response	Records/Information Available
a. property boundaries, including a written legal description;	The Riverview Substation is a 1.03-acre parcel located in the southeast quarter of the northwest quarter of Section 22 in Township 1 South, Range 1 East of the Willamette Meridian. Also see the responses and documents attached for Questions 4, 5, and 7.	See Question 4 Attachment Q04a_RiverviewPlat.pdf Also see all Question 5 Attachments Also see Question 7 Attachments Q07_1949 Riverview Cemetery Deed.pdf Q07_1959 Riverview Cemetery Association Deed .pdf
b. location of underground utilities (telephone, electrical, sewer, water main, etc.);	There are three pairs of 6-inch PVC conduits that each contain 3-750 AL XLP jacketed cables for a total of six 6-inch conduits and 18 cables. The conduits/cables are buried at approximately 3-feet deep and run from feeder circuit breakers inside of the substation to poles outside the substation. These cables and conduits are used as 13kV feeder getaways to distribute power within the nearby community. The attached Fieldview print (Q13b_FieldView_RiverviewSub.pdf) and operating diagram (Q13b_Operating Electrical Diagram.pdf) show the approximate location and orientation of these three underground feeder getaways labeled Riverview–Macadam, Riverview–Fulton, and Riverview–Terwilliger. To the best of PGE's knowledge, after reasonable inquiry, and based on the attached Sewer map (Q13b_Riverview Sub_Sewer.pdf), the site is not directly served by a municipal sanitary sewer. An inlet connection to a sanitary line is located outside of the fence line on SW Taylors Ferry Road. To the best of PGE's knowledge, after reasonable inquiry, the Riverview Substation does not have and never has had a direct connection to this sanitary line. Portland Maps indicates a 1.5" pressurized water main entering the property from the north (see Q13b_Riverview Sub_Water.pdf). However, to the best of PGE's knowledge, after reasonable inquiry, there is no municipal water service to the property and PGE does not use this water line.	Question 13 Attachments Q13b_FieldView_RiverviewSub.pdf (CEII[1]) Q13b_Operating Electrical Diagram.pdf (CEII[1]) Q13b_Riverview Sub_Sewer.pdf Q13b_Riverview Sub_Water.pdf
c. location of all underground pipelines whether or not owned, controlled or operated by you;	To the best of PGE's knowledge, after reasonable inquiry, the only underground pipeline at the Riverview Substation is the 1.5" pressurized water main described in response to Question 13b. See the response and the document (Q13b_Riverview Sub_Water.pdf) attached for Question 13b.	Question 13 Attachment Q13b_Riverview Sub_Water.pdf
d. surface structures (e.g., buildings, tanks, pipelines, etc.);	There is one concrete utility vault located in the northwest corner of the Riverview Substation that is being used as a pulling vault for the Riverview-Terwilliger 13kV feeder cable mentioned in response to Question 13b. The concrete vault is flush with the ground and about 5 feet deep. Above-ground features at the Riverview Substation include the following. Buildings: • Control building – houses communications and control equipment. Structures: • Transmission structure – supports high voltage conductors and switches. • Distribution structure – supports medium voltage conductors and switches. Equipment: • Two metering transformers	

[1] Attachment located on the Confidential Critical Energy Infrastructure Information (CEII) CD

EPA Question	Response	Records/Information Available
	• One power transformers	
e. over-water structures (e.g., piers, docks, cranes, etc.);	There are no over-water structures at the Riverview Substation.	
f. dry wells;	To the best of PGE's knowledge, after reasonable inquiry, PGE had/has no dry wells at the Riverview Substation.	
g. treatment or control devices (e.g., surface water. air, groundwater, Resource Conservation and Recovery Act (RCRA), Transfer, Storage, or Disposal (TSD), etc.);	To the best of PGE's knowledge, after reasonable inquiry, other than the stormwater control and secondary spill containment system described in response to Questions 13i and 19, there are no treatment or control devices at the Riverview Substation.	
h. groundwater wells, including drilling logs;	To the best of PGE's knowledge, after reasonable inquiry, PGE had/has no groundwater wells at the Riverview Substation.	
i. stormwater drainage system, and sanitary sewer system, past and present, including septic tank(s) and where, when and how such systems are emptied and maintained;	To the best of PGE's knowledge, after reasonable inquiry, and based on the attached Sewer map (Q13b_Riverview Sub_Sewer.pdf), the site is not directly served by sanitary sewer. An inlet connection to a sanitary line is located outside of the fence line on SW Taylors Ferry Road. To the best of PGE's knowledge, after reasonable inquiry, the Riverview Substation does not have and never has had a connection to this sanitary line. To the best of PGE's knowledge, after reasonable inquiry, PGE was unable to locate any records describing the sites' stormwater drainage prior to 1962; however, it is reasonable to assume it infiltrated through the gravel surface at the Riverview Substation. A design drawing dated 1962 (see Q19_1962 SubsurfaceDrainage.pdf, attached in resonse to Question 19) indicates that PGE installed subsurface drainage trenches with perforated pipe along the western and southern edges of the substation. Since stormwater at the Riverview Substation flows east, the western and southern trenches, located upslope of the substation equipment, would have captured stormwater draining from the vegetated areas and roadways adjacent to the Riverview Substation; thereby keeping upslope stormwater from flowing onto the substation. A design drawing dated 1964 (see Q19_1964 SurfaceDrainage.pdf, attached in response to Question 19) indicates that PGE installed a concrete stormwater drainage ditch along the eastern edge of the substation. Stormwater within the substation either infiltrated the gravel surface or flowed east from the substation, into the drainage ditch along the eastern fence. Stormwater within the concrete drainage ditch flowed through an oil stop valve at the southeastern end before discharging to an unlined ditch adjacent to (outside of) the substation. The stormwater in this unlined ditch would have infiltrated into the ground, or, occasionally drained into Stephens Creek, which flows into the Willamette River. See the attached Portland Maps document (Q13i_Drainage Mapping.pdf) and the SPCC Plan (Q19_Riverview_SPCC Plan.pdf) attached in response to Question 19. In 1984, during the installation of a secondary spill containment system, several features were	Question 13 Attachments Q13b_Riverview Sub_Sewer.pdf Q13i_Drainage Mapping.pdf Also see Question 19 Attachments Q19_1962 SubsurfaceDrainage.pdf Q19_1964 SurfaceDrainage.pdf Q19_1984 SecondaryContain.pdf Q19_Riverview_SPCC Plan.pdf Q19_OilContain_ConstPlans.pdf Q19_OilContain_ConstPlans2.pdf Q19_2004 SecondaryContain.pdf Q19_2004 Riverview_OilContain.pdf (CEII[1]) Q19_2004 Fence and Location Plan.pdf (CEII[1]) Q19_Drainage_2008.pdf (CEII[1])

[1] Attachment located on the Confidential Critical Energy Infrastructure Information (CEII) CD

EPA Question	Response	Records/Information Available
	installed or upgraded to enhance stormwater control. These included: • Installation of cement-treated drainage ditches at the north and south ends of the substation, • Construction of a new concrete retaining wall at the southeast corner of the substation, and • Replacement of the old oil stop valve with a new manhole and oil stop valve in the southeastern corner of the substation drainage ditch. See the document (Q19_1984 SecondaryContain.pdf) attached in response to Question 19, as well as the figures on pages 9 and 10 of the SPCC Plan (Q19_Riverview_SPCC Plan.pdf) attached in response to Question 19. The primary purpose of the secondary spill containment system is to contain oil from power equipment in case of leaks or failures (see the response to Question 19 for further information). In 2004 and 2005, the stormwater control and secondary spill containment system was upgraded. The upgrades to the secondary oil containment system are illustrated in the documents (Q19_OilContain_ConstPlans.pdf, Q19_OilContain_ConstPlans2.pdf, Q19_2004 SecondaryContain.pdf, and Q19_2004 Riverview_OilContain.pdf) attached in response to Question 19 and include: • Installation of perforated pipe in the drainage ditch along the eastern fence of the Riverview Substation, • Addition of liners under the majority of oil-filled equipment, • Installation of JD 300 Drainage Mat within the lined oil-filled equipment area, • Installation of a non-perforated pipe from the drainage mat within the lined oil-filled equipment area to the drainage trench along the along the southern edge of the Riverview Substation • Installation of a liner under the southern drainage trench and addition of a perforated pipe, which connects to an oil stop valve • Installation of a non-perforate pipe that connects the southern drainage trench (via the oil stop valve) to the perforated pipe within the eastern drainage trench Stormwater falling within the secondary containment system (lined areas) drains through the system described above and into the lined drainage ditch along the eastern fence of the substation. Stormwater flows through an oil stop valve before discharging to the unlined ditch adjacent to (outside of) the substation. Water in this ditch infiltrates into the ground, or, occasionally, drains into Stephens Creek, which flows into the Willamette River. See the attached Portland Maps document (Q13i_Drainage Mapping.pdf) and the SPCC Plan (Q19_Riverview_SPCC Plan.pdf) attached in response to Question 19. Also see the document (Q19_Drainage_2008.pdf) attached in response to Question 19, which summarizes the current substation drainage. Stormwater falling outside the secondary containment system (lined areas) at the Riverview Substation infiltrates through the gravel surface covering those portions of the site.	

EPA Question	Response	Records/Information Available
j. subsurface disposal field(s), Underground Injection Control (UIC) wells, and other underground structures (e.g., underground storage tanks (USTs); and where they are located, if they are still used, and how they were closed.	To the best of PGE's knowledge, after reasonable inquiry, other than the stormwater control and secondary spill containment system described in response to Questions 13i and 19, and the concrete utility vault located in the northwest corner of the Riverview Substation, described in response to Question 13d, there are no known subsurface disposal fields, Underground Injection Control (UIC) wells, or other underground structures at the Riverview Substation.	
k. any and all major additions, demolitions or changes on, under or about the Property, its physical structures or to the Property itself (e.g., stormwater drainage, excavation work); and any planned additions, demolitions or other changes to the Property;	To the best of PGE's knowledge, after reasonable inquiry, the Riverview Substation has undergone a series of modifications, including: • Initial substation construction and installation of electrical equipment by 1962. • Construction of a driveway with permission from the City of Portland (see Q50_1962 COP Driveway Permit.pdf, attached in response to Question 50). • Installation of drainage trenches along the western and southern substation boundaries by 1962. • Installation of a drainage trench along the eastern fence of the substation by 1964. • Installation of the secondary spill containment system in 1984. • Upgrades to the stormwater control and secondary spill containment system in 2004/2005. See the response to Question 13d for a description of the substation structures. See the documents (Q19_1962 SubsurfaceDrainage.pdf, Q19_1964 SurfaceDrainage.pdf, Q19_1984 SecondaryContain.pdf, Q19_Riverview_SPCC Plan.pdf, Q19_OilContain_ConstPlans.pdf, Q19_OilContain_ConstPlans2.pdf, Q19_2004 SecondaryContain.pdf, Q19_2004 Riverview_OilContain.pdf, Q19_Drainage_2008.pdf, and Q19_2004 Fence and Location Plan.pdf) attached in response to Question 19. Also see the attached document (Q13k_Riverview List of Materials.pdf), which list the materials for electrical arrangement added and removed since 1962.	Question 13 Attachment Q13k_Riverview List of Materials.pdf Also see Question 19 Attachments Q19_1962 SubsurfaceDrainage.pdf Q19_1964 SurfaceDrainage.pdf Q19_1984 SecondaryContain.pdf Q19_Riverview_SPCC Plan.pdf Q19_OilContain_ConstPlans.pdf Q19_OilContain_ConstPlans2.pdf Q19_2004 SecondaryContain.pdf Q19_2004 Riverview_OilContain.pdf (CEII[1]) Q19_Drainage_2008.pdf (CEII[1]) Q19_2004 Fence and Location Plan.pdf (CEII[1]) Also see Question 50 Attachment Q50_1962 COP Driveway Permit.pdf
l. all maps and drawings of the Property in your possession; and	Please refer to the attached grading, topography, and planting plans. Also see the figures attached in response to other questions herein.	Question 13 Attachments Q13L_Grading.pdf Q13L_Topography.pdf Q13L_Riverview 1962 Planting Plan.pdf
m. all aerial photographs of the Property in your possession.	Aerial photographs are available at Google Maps, Google Earth, and Portland Maps. The 2007 aerial photograph from Portland Maps is attached.	Question 13 Attachment Q13m_Riverview_Aerial.pdf
n. all information requested in (a) through (m) above regarding, but not limited to, the following:		
i. the Portland General Electric	See the separate 104(e) response for Station L.	

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EPA Question	Response	Records/Information Available
Station L location on 1841 SE Water Ave;		
ii. the Portland General Electric Station E location on 2635 NW Front Ave;	See the separate 104(e) response for Station E.	
iii. the Portland General Electric Station N location on 6616 N Lombard St.;	See the separate 104(e) response for Station N.	
14. For Properties adjacent to the Willamette River, provide specific information describing the river-ward boundary of private ownership and where state aquatic lands and/or state-management jurisdiction begins. Provide a map that delineates the river-ward boundary of each Property.	Not applicable. The Riverview Substation is not adjacent to the Willamette River.	
15. For each Property, provide all reports, information or data you have related to soil, water (ground and surface), or air quality and geology/hydrogeology at and about each Property. Provide copies of all documents containing such data and information, including both past and current aerial photographs as well as documents containing analysis or interpretation of such data.	Soil characterization sampling was conducted in November 2004, prior to upgrading the stormwater control and secondary spill containment system. A total of 28 samples were analyzed for PCBs and total petroleum hydrocarbons; see the attached documents (Q15_11-30-2004_part a.pdf and Q15_11-30-2004_part b.pdf). Four samples detected PCBs at concentrations less than 1 ppm (see Q15_11-30-2004_part a.pdf, attached). Based on these results, approximately 300 tons of soil and gravel in the vicinity of these four samples was excavated and disposed of at Hillsboro Landfill. For further information regarding the disposal of wastes and materials, see the response to Question 21. Also see the spill reports attached in response to Question 62. The SPCC Plan (Q19_Riverview_SPCC.pdf), attached in response to Question 19, briefly discusses topography and soil condition at the Riverview Substation. To the best of PGE's knowledge, after reasonable inquiry, the attached documents include all the data reports PGE was able to locate for the Riverview Substation related to soil, water (ground and surface), or air quality and geology/hydrogeology.	Question 15 Attachments Q15_11-30-2004_part a.pdf Q15_11-30-2004_part b.pdf Also see Question 19 Attachment Q19_Riverview_SPCC.pdf Also see all Question 62 Attachments
16. Identify all past and present solid waste management units or areas where materials are or were in the past managed, treated, or disposed (e.g., waste piles, landfills, surface	Not applicable. To the best of PGE's knowledge, after reasonable inquiry, there are no past or present solid waste management units or areas where materials are or were in the past managed, treated, or disposed (e.g., waste piles, landfills, surface impoundments, waste lagoons, waste ponds or pits, tanks, container storage areas, etc.) at the Riverview Substation.	

EPA Question	Response	Records/Information Available
impoundments, waste lagoons, waste ponds or pits, tanks, container storage areas, etc.) on each Property. For each such unit or area, provide the following information:		
a. a map showing the unit/area's boundaries and the location of all known units/areas whether currently in operation or not. This map should be drawn to scale, if possible, and clearly indicate the location and size of all past and present units/areas;		
b. dated aerial photograph of the site showing each unit/area;		
c. the type of unit/area (e.g., storage area, landfill, waste pile, etc.), and the dimensions of the unit/area;		
d. the dates that the unit/area was in use;		
e. the purpose and past usage (e.g., storage, spill containment, etc.);		
f. the quantity and types of materials (hazardous substances and any other chemicals) located in each unit/area and;		
g. the construction (materials, composition), volume, size, dates of cleaning, and condition of each unit/area.		
17. If the unit/area described above is no longer in use, how was such unit/area closed and what actions were taken to prevent or address potential or actual releases of waste constituents from the unit/area.	Not applicable to the Riverview Substation. See response to Question 16.	
18. For each Property, provide the following information regarding any current or former sewer or storm sewer		

EPA Question	Response	Records/Information Available
lines or combined sanitary/storm sewer lines, drains, ditches, or tributaries discharging into the Willamette River:		
a. the location and nature of each sewer line, drain, ditch, or tributary;	To the best of PGE's knowledge, after reasonable inquiry, and based on the map attached in response to Question 13b (Q13b_Riverview Sub_Sewer.pdf), no storm, sanitary or combined sewer lines directly serve this property. An inlet connection to a sanitary line is located outside of the fence line on SW Taylors Ferry Road. To the best of PGE's knowledge, after reasonable inquiry, the Riverview Substation does not have and never has had a connection to this sanitary line. To the best of PGE's knowledge, after reasonable inquiry, PGE was unable to locate any records describing the site's stormwater drainage prior to 1962; however, it is reasonable to assume it infiltrated through the gravel surface at the Riverview Substation. After 1964, site stormwater either infiltrated through the gravel surface or was drained into the site's concrete drainage ditch along the eastern site's fence. After 2004/2005, site stormwater within the lined oil-filled equipment area flowed through a system of drainage mats, pipes, and a southern trench with an oil stop valve, into the eastern lined drainage ditch. Since 1964, stormwater flows out of the eastern drainage ditch through an oil stop valve at the southeastern end before discharging to an unlined ditch adjacent to the substation. Water in this ditch primarily infiltrates into the ground, but may occasionally drain into Stephens Creek, which flows into the Willamette River. Stormwater outside the lined oil-filled equipment areas infiltrates through the gravel surface covering those portions of the substation. Also see the response to Question 13i and the documents attached in response to Questions 13i and 19.	See Question 13 Attachments Q13b_Riverview Sub_Sewer.pdf Q13i_Drainage Mapping.pdf Also see Question 19 Attachments Q19_1962 SubsurfaceDrainage.pdf Q19_1964 SurfaceDrainage.pdf Q19_1984 SecondaryContain.pdf Q19_Riverview_SPCC Plan.pdf Q19_OilContain_ConstPlans.pdf Q19_OilContain_ConstPlans2.pdf Q19_2004 SecondaryContain.pdf Q19_2004 Riverview_OilContain.pdf (CEII[1]) Q19_Drainage_2008.pdf (CEII[1])
b. the date of construction of each sewer line, drain, ditch, or tributary;	To the best of PGE's knowledge, after reasonable inquiry, and based on the documents attached in response to Question 19, the stormwater control and secondary spill containment system ditches and drains were constructed/installed at various times: in the early 1960's, in 1984, and in 2004/2005. See response and documents attached for Question 13i and 19.	See Question 13 Attachment Q13i_Drainage Mapping.pdf Also see Question 19 Attachments Q19_1962 SubsurfaceDrainage.pdf Q19_1964 SurfaceDrainage.pdf Q19_1984 SecondaryContain.pdf Q19_Riverview_SPCC Plan.pdf Q19_OilContain_ConstPlans.pdf Q19_OilContain_ConstPlans2.pdf Q19_2004 SecondaryContain.pdf Q19_2004 Riverview_OilContain.pdf (CEII[1]) Q19_Drainage_2008.pdf (CEII[1])
c. whether each sewer line, or drain was ever connected to a main trunk line;	Not applicable. See response to Question 18a.	

[1] Attachment located on the Confidential Critical Energy Infrastructure Information (CEII) CD

EPA Question	Response	Records/Information Available
d. whether each sewer line, drain, ditch, or tributary drained any hazardous substance, waste, material or other process residue to the Willamette River; and	To the best of PGE's knowledge, after reasonable inquiry, other than the discharge of site stormwater from within the stormwater control and secondary spill containment system to an unlined ditch adjacent to (outside of) the substation (which primarily infiltrates into the ground, but may occasionally drain into Stephens Creek, which flows into the Willamette River), PGE is unaware of the discharge of any waste, material, or process residue to the Willamette River from the Riverview Substation. See the response to Questions 13i and 19 for further details.	
e. any documentation regarding but not limited to the following on any and all outfalls to the Willamette River which are located within the boundaries of the Property(ies). Your response should include, but not be limited to:	Not applicable. The Riverview Substation has no direct outfalls to the Willamette River within its borders. As previously discussed, site stormwater from within the stormwater control and secondary spill containment system discharges to an unlined ditch adjacent (outside of) the Riverview Substation (which primarily infiltrates into the ground, but may occasionally drain into Stephens Creek, which flows into the Willamette River).	
i. the areas serviced by the outfalls; and		
ii. the type of outfall (i.e., stormwater or single facility operational).		
19. Provide copies of any stormwater or property drainage studies, including data from sampling, conducted at these Properties on stormwater, sheet flow, or surface water runoff. Also provide copies of any Stormwater Pollution Prevention, Maintenance Plans or Spill Plans developed for different operations during the Respondent's operation of each Property.	The Riverview Substation SPCC Plan, as well as site-specific spill containment figures and details, are attached. The SPCC Plan and associated figures are utilized by PGE to ensure that the Riverview Substation has adequate operating procedures that prevent oil spills, control measures installed to prevent a spill from reaching navigable waters, and countermeasures to contain, clean up, and mitigate the effects of an oil spill that reaches navigable waters. The oil containment system, which includes the stormwater and secondary oil spill containment system, captures and contains oil from power equipment in case of leaks or failures. The stormwater and secondary spill containment system is discussed in more detail in the response to Question 13i. General PGE spill clean up procedures are described in the attached documents (Q19_Environmental Services Oil Spill Instruction.pdf, Q19_Oil Spill Cleanup Procedures.pdf, Q19_Oil Spill Response Team.pdf, and Q19_Oil Spill First Response.pdf). To the best of PGE's knowledge, after reasonable inquiry, other than evaluation for SPCC requirements, PGE has conducted no sampling or other studies of stormwater and no drainage studies at the Riverview Substation.	Question 19 Attachments Q19_Riverview_SPCC Plan.pdf Q19_1962 SubsurfaceDrainage.pdf Q19_1964 SurfaceDrainage.pdf Q19_1984 SecondaryContain.pdf Q19_OilContain_ConstPlans.pdf Q19_OilContain_ConstPlans2.pdf Q19_2004 SecondaryContain.pdf Q19_2004 Riverview_OilContain.pdf (CEII[1]) Q19_Drainage_2008.pdf (CEII[1]) Q19_2004 Fence and Location Plan.pdf (CEII[1]) Q19_Environmental Services Oil Spill Instruction.pdf Q19_ Oil Spill Cleanup Procedures.pdf Q19_Oil Spill Response Team.pdf Q19_Oil Spill First Response.pdf
Section 4.0 - Respondent's Operational Activities		
20. Describe the nature of your operation or business activities at each Property. If the operation or business activity changed over time, please identify each	See the response to Question 5g for a description of the activities performed at the Riverview Substation. The purpose of the Riverview Substation is to provide continuous electrical power to customers and to protect the public and equipment from electrical and mechanical faults. The substation has been operational since 1962 and has undergone several modifications; see the response and document (Q13k_Riverview List of Materials.pdf) for Question 13k.	See Question 13 Attachment Q13k_Riverview List of Materials.pdf

[1] Attachment located on the Confidential Critical Energy Infrastructure Information (CEII) CD

EPA Question	Response	Records/Information Available
separate operation or activity, the dates when each operation or activity was started and. if applicable, ceased.		
21. At each Property, did you ever use, purchase, generate, store, treat, dispose, or otherwise handle any waste, or material? If the answer to the preceding question is anything but an unqualified "no," identify:		
a. in general terms, the nature and quantity of the waste or material so transported, used, purchased, generated, stored, treated, disposed, or otherwise handled;	Most of the functions of a substation are automatic and occur without direct supervision. No wastes, including municipal wastes, are generated during regular operations. Periodically, equipment is taken out of service for off-site maintenance. During these periods, waste material is generated. The primary materials used for maintenance are: transformer oil, solvents, denatured alcohol, degreasers, lubricating grease, hydraulic fluid, and paint. Soil and gravel removed from PGE properties during excavation (from upgrades or equipment spill response) are tested and disposed of appropriately, as needed. In November 2004, soil characterization sampling was conducted at the Riverview Substation prior to upgrading the stormwater control and secondary spill containment system. A total of 28 samples were analyzed for PCBs and total petroleum hydrocarbons; see the documents (Q15_11-30-2004_part a.pdf and Q15_11-30-2004_part b.pdf) attached in response to Question 15. Four samples detected PCBs at concentrations less than 1 ppm. Based on these results, approximately 300 tons of soil and gravel in the vicinity of these four samples were excavated and disposed of at Hillsboro Landfill in December 2004. See the waste disposal permit (Q52_Riverview_WAL_12-17-2004.pdf) attached in response to Question 52. In January 2005, four samples of cement chips were analyzed for PCBs and total petroleum hydrocarbons to characterize construction debris; see the document (Q21c_1-04-2005.pdf) attached in response to Question 21c. PCBs were not detected in any of the samples. As indicated in the attached document (Q21a_Waste Stream Summary.pdf), this construction debris was likely disposed of at the Hillsboro Landfill. To the best of PGE's knowledge, after reasonable inquiry, it is likely that the waste authorization request (Q21c_Riverview_WA request_07-11-2002.pdf) attached in response to Question 21c, included the waste from the spill described in the document (Q62_2002-07-02_Spill Cleanup Log.pdf) attached in response to Question 62. One barrel of petroleum hydrocarbon-contaminated soil, gravel, and absorbent materials with 14 ppm PCBs was transported from the Riverview Substation to Wilsonville, a PGE waste and material handling facility, on July 3, 2002 and subsequently disposed of in an appropriate Waste Management operated landfill. See the attached document (Q21a_Oil Filled Equipment.pdf) for the list of oil-filled substation equipment currently at the Riverview Substation. The document identifies the position, serial number, year manufactured, detected PCB concentrations and the date tested for PCBs, and oil	Question 21 Attachments Q21a_Waste Stream Summary.pdf Q21a_Oil Filled Equipment.pdf Q21c_Riverview_WA request_07-11-2002.pdf Q21c_1-04-2005.pdf Also see Question 15 Attachments Q15_11-30-2004_part a.pdf Q15_11-30-2004_part b.pdf Also see Question 33 Attachment Q33_EMC List.pdf Also see Question 40 Attachment Q40_Waste-Materials Receivers and Carriers.pdf Also see Question 52 Attachment Q52_ Riverview_WAL_12-17-2004.pdf Also see Question 62 Attachment Q62_2002-07-02_Spill Cleanup Log.pdf

EPA Question	Response	Records/Information Available
	volume of oil-filled equipment at the Riverview Substation. The products/materials currently used at PGE properties within Oregon and potentially used at the Riverview Substation are listed in the document (Q33_EMC List.pdf) attached in response to Question 33. Material Safety Data Sheets (MSDS) are provided in a supplemental submittal (Supplemental Submittal S2). Products/materials used in the past are similar to those used currently. To the best of PGE's knowledge, after reasonable inquiry, those companies/persons with whom PGE currently has arrangements for disposal/recycling/destruction of wastes and/or used material are listed in the attached document (Q21a_Waste Stream Summary.pdf). The document summarizes the current various waste stream types, the current initial carrier, the current interim storage (if applicable), the current secondary carrier (if applicable), and the current disposal/recycling facility. To the best of PGE's knowledge, after reasonable inquiry, all companies/persons with whom PGE has made arrangements for disposal/recycling/destruction of wastes and/or used material for PGE properties in Oregon are listed in the document (Q40_Waste-Materials Receivers and Carriers.pdf) attached in response to Question 40.	
b. the chemical composition, characteristics, physical state (e.g.. solid. liquid) of each waste or material so transported, used, purchased, generated, stored. treated, disposed, or otherwise handled;	The primary materials used for maintenance include transformer oil (liquid), solvents (liquid), denatured alcohol (liquid), degreasers (liquid), lubricating grease (semi-liquid), hydraulic fluid (liquid) and paint (liquid). The chemical composition, characteristics, and physical state of materials potentially used at the Site are described in the MSDS documents for the products/materials currently used at PGE properties within Oregon, which are provided in a supplemental submittal (Supplemental Submittal S2). In November 2004, soil characterization sampling was conducted at the Riverview Substation prior to upgrading the stormwater control and secondary spill containment system. A total of 28 samples were analyzed for PCBs and total petroleum hydrocarbons; see the documents (Q15_11-30-2004_part a.pdf and Q15_11-30-2004_part b.pdf) attached in response to Question 15. Four samples detected PCBs at concentrations less than 1 ppm. Based on these results, approximately 300 tons of soil (solid) and gravel (solid) in the vicinity of these four samples were excavated and disposed of at Hillsboro Landfill in December 2004. See the waste disposal permit (Q52_Riverview_WAL_12-17-2004.pdf) attached in response to Question 52. In January 2005, four samples of cement chips were analyzed for PCBs and total petroleum hydrocarbons to characterize construction debris (solid); see the document (Q21c_1-04-2005.pdf) attached in response to Question 21c. PCBs were not detected in any of the samples. As indicated in the document (Q21a_Waste Stream Summary.pdf) attached in response to Question 21a, this construction debris (solid) would have been disposed of at the Hillsboro Landfill. To the best of PGE's knowledge, after reasonable inquiry, it is likely that the waste authorization request (Q21c_Riverview_WA request_07-11-2002.pdf) attached in response to Question 21c, included the waste from the spill described in the document (Q62_2002-07-02_Spill Cleanup Log.pdf) attached in response to Question 62. One barrel of petroleum hydrocarbon-contaminated soil, gravel, and absorbent materials (all solid) with 14 ppm PCBs was transported from the Riverview Substation to Wilsonville, a PGE waste and material handling facility, on July 3, 2002 and subsequently disposed of in an appropriate Waste Management operated landfill.	Question 21 Attachments Q21a_Waste Stream Summary.pdf Q21c_Riverview_WA request_07-11-2002.pdf Q21c_1-04-2005.pdf Also see Question 15 Attachments Q15_11-30-2004_part a.pdf Q15_11-30-2004_part b.pdf Also see Question 52 Attachment Q52_Riverview_WAL_12-17-2004.pdf Also see Question 62 Attachment Q62_2002-07-02_Spill Cleanup Log.pdf

EPA Question	Response	Records/Information Available
	Soil (solid) and gravel (solid) removed from PGE properties during other site excavations (from other site upgrades or equipment spill response) are tested (for petroleum-hydrocarbon and/or PCB contamination) and disposed of appropriately, as needed. Also see the documents attached in response to Question 21c, below.	
c. how each such waste or material was used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you; and	No waste or materials are/were stored on site. Historically, wastes and used materials from within the Investigation Area were transported either directly to the appropriate disposal facility or to one of PGE's waste and material handling facilities at Harborton Substation (located at 12500 NW Marina Way, Portland, OR), Sellwood Substation (located at 8856 SE 13th Ave), Portland Service Center (PSC) (located at 3700 SE 17th Ave, Portland, Oregon), or Wilsonville (located at 9480 SW Boeckman Rd, Wilsonville, Oregon - only soil/gravel with < 50 ppm PCBs) for interim storage prior to disposal/recycling/destruction. Currently, wastes and used materials that are not transported directly to the appropriate disposal facility are transferred to the current waste and material handling facilities (PSC and Wilsonville [only soil/gravel with < 50 ppm PCBs]) for interim storage prior to disposal/recycling/destruction. Materials potentially contaminated with PCBs are sealed in barrels and transferred to PGE's waste and material handling facility (currently at PSC). Once received at the waste and material handling facility, these wastes are tested to determine a disposal location appropriate for their PCB concentration or assumed to contain PCBs. These wastes include: • Used/excess lubricants, oils, and other fluids • Obsolete equipment (e.g., transformers, capacitors) • Rags used to clean equipment • Absorbent material used to clean up leaks or spills • Ballasts Wastes not contaminated with PCBs (< 50 ppm) are containerized separately and transferred to PGE's waste and material handling facility (currently at PSC). The Toxic Substances Control Act (TSCA) regulation standard and accepted industry standard is to use the term "non-PCB" to describe oils with < 50 ppm PCBs; this term is used throughout this document. Non-PCB wastes include: • Solvents • Batteries • Scrap metal • Light bulbs • General garbage and recycling As discussed in the response to Question 21a and 21b, approximately 300 tons of soil and gravel were excavated and disposed of at Hillsboro Landfill in December 2004. This soil and gravel was excavated during the 2004 upgrade of the stormwater control and secondary spill containment system. See the waste disposal permit (Q52_Riverview_WAL_12-17-2004.pdf) attached in response to Question 52.	Question 21 Attachments Q21a_Waste Stream Summary.pdf Q21c_Riverview_WA request_07-11-2002.pdf Q21c_1-04-2005.pdf Q21c_Cleaning Up Small Mercury Spills 2008.pdf Q21c_HID and Fluorescent Tube Storage Instructions.pdf Q21c_PGE Aerosol Can Disposal Flowchart 2006.pdf Q21c_PGE Battery Flow Chart 2007.pdf Q21c_PGE Bulb & Tube Recycling Flowchart 2006.pdf Also see all Question 52 Attachments Also see Question 62 Attachment Q62_2002-07-02_Spill Cleanup Log.pdf

EPA Question	Response	Records/Information Available
	In January 2005, four samples of cement chips were analyzed for PCBs and total petroleum hydrocarbons to characterize construction debris; see the attached document (Q21c_1-04-2005.pdf). PCBs were not detected in any of the samples. As indicated in the document (Q21a_Waste Stream Summary.pdf) attached in response to Question 21a, this construction debris would have been disposed of at the Hillsboro Landfill. Soil and gravel removed during excavations (from upgrades or equipment spill response) is tested and disposed of appropriately. The soil and gravel are either transported directly from the site to the disposal facility, or are transported to Wilsonville and/or PSC for interim storage before bulk disposal at a location dependant upon PCB content. To the best of PGE's knowledge, after reasonable inquiry, it is likely that the attached waste authorization request (Q21c_Riverview_WA request_07-11-2002.pdf), included the waste from the spill described in the document (Q62_2002-07-02_Spill Cleanup Log.pdf) attached in response to Question 62. One barrel of petroleum hydrocarbon-contaminated soil, gravel, and absorbent materials with 14 ppm PCBs was transported from the Riverview Substation to Wilsonville, a PGE waste and material handling facility, on July 3, 2002 and subsequently disposed of in an appropriate Waste Management operated landfill. See the attached documents for available waste and used material information, as well as descriptions of PGE's waste and used material handling procedures. Also see the document (Q21a_Waste Steam Summary.pdf) attached in response to Question 21a and the waste disposal permits attached in response to Question 52. The attached mercury spill cleanup guide is a general PGE guidance and does not imply that mercury spills have ever occurred at the Riverview Substation. The Harborton Substation, which was historically a PGE waste and material handling facility, is within the Investigation Area and is addressed in a separate 104(e) response. Also see the supplemental submittal of documentation from other PGE facilities that may have received waste and materials from the Riverview Substation (Supplemental Submittal S7).	
d. the quantity of each such waste or material used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you.	Waste was generated during substation operations associated with equipment maintenance and upgrades. To the best of PGE's knowledge, after reasonable inquiry, PGE has no information on the exact quantities of oil or routine maintenance waste removed from the Riverview Substation. According to the attached waste disposal permit (Q52_Riverview_WAL_12-17-2004.pdf), approximately 300 tons of soil and debris were transported to the Hillsboro landfill in December 2004. This waste was generated from the removal of soil and gravel with detected PCB concentrations less than 1 ppm. This soil and gravel was identified during a soil characterization conducted in November 2004 at the Riverview Substation prior to upgrading the stormwater control and secondary spill containment system. To the best of PGE's knowledge, after reasonable inquiry, PGE was unable to locate any documents indicating the quantity of construction debris (concrete) removed in 2005. Soil and gravel removed during excavations (from upgrades or equipment spill response) are tested and disposed of appropriately. These are generally transported directly from the site to the disposal facility or to Wilsonville/PSC, depending on concentration of PCB/petroleum	Question 21 Attachments Also see Question 52 Attachment Q52_Riverview_WAL_12-17-2004.pdf Also see Question 62 Attachment Q62_2005-12-12_600 SW Taylors Ferry.pdf

EPA Question	Response	Records/Information Available
	hydrocarbon-contamination. According to the waste authorization request (Q21c_Riverview_WA request_07-11-2002.pdf), attached in response to Question 21c, one barrel of petroleum hydrocarbon-contaminated soil/gravel/absorbent materials with 14 ppm PCBs was transported from the Riverview substation to Wilsonville, a PGE waste and material handling facility, on July 3, 2002. This waste was subsequently disposed of in a Waste Management operated landfill. To the best of PGE's knowledge, after reasonable inquiry, it is likely that this waste was from the spill described in the document (Q62_2002-07-02_Spill Cleanup Log.pdf) attached in response to Question 62. For further waste documentation/information, see the responses to Questions 21a and 21c. Also see the waste and materials documentation provided in the separate 104(e) response for the Harborton Substation, which was historically a waste and material handling facility and is within the Investigation Area, and the supplemental submittal of documentation from other PGE facilities that may have received waste and materials from the Riverview Substation (Supplemental Submittal S7).	
22. Describe all activities at each Property that was conducted over, on, or adjacent to, the Willamette River. Include in your description whether the activity involved hazardous substances, waste(s), or materials and whether any such hazardous substances, waste(s), or materials were discharged, spilled, disposed of, dropped, or otherwise came to be located in the Willamette River.	Not applicable. The Riverview Substation is not located adjacent to the Willamette River.	
23. For each Property at which there was or is a mooring facility, dock, wharf or any over-water structure, provide a summary of over-water activities conducted at the structure, including but not limited to, any material loading and unloading operations associated with vessels, materials handling and storage practices, ship berthing and anchoring, ship fueling, and ship building, retrofitting, maintenance, and repair.	Not applicable. The Riverview Substation does not have any over-water structures.	

EPA Question	Response	Records/Information Available
24. Describe all activities conducted on leased aquatic lands at each Property. Include in your description whether the activity involved hazardous substances, waste, or materials and whether any such hazardous substances, waste, or materials were discharged, spilled, disposed of, dropped, or otherwise came to be located on such leased aquatic lands.	Not applicable. There are no leased aquatic lands at the Riverview Substation.	
25. Please describe the years of use, purpose, quantity, and duration of any application of pesticides or herbicides on each Property during the period of investigation (1937 to the present). Provide the brand name of all pesticides or herbicides used.	Several herbicides have been used at the Riverview Substation to control vegetation growth. From 1992 through 2007, one or more herbicides (i.e., Oust, Diuron, Princep, Pendulum, Landmark, Portfolio, and/or Casoron G4 and Garlon4) were used at the Riverview Substation. To the best of PGE's knowledge, after reasonable inquiry, the following are the quantities applied (when applied): • Oust – 2-3 oz per acre • Diuron – 5-6 lbs per acre • Princep – 5 lbs per acre • Pendulum – 5 lbs per acre • Landmark – 4.5 oz per acre • Portfolio – 4 oz per acre • Casoron G4 and Garlon 4 – as needed for spot brush control • See the attached document for further details on the known herbicide application history.	Question 25 Attachment Q25_Riverview_HerbApp_History.pdf
26. Describe how wastes transported off the Property for disposal are and ever were handled, stored, and/or treated prior to transport to the disposal facility.	No waste or materials are stored onsite. Wastes and used materials from within the Investigation Area are either transported directly to the appropriate disposal facility or transported to a PGE waste and material handling facility for interim storage prior to disposal/recycling/destruction. Historically, PGE's waste and material handling facilities were Harborton Substation, Sellwood Substation, PSC, or Wilsonville (only soil/gravel with < 50 ppm PCBs). Currently, PGE's waste and material handling facilities are PSC and Wilsonville (only soil/gravel with < 50 ppm PCBs). For further waste information, see the responses and documents for Questions 21 and 52.	See all Question 21 Attachments Also see all Question 52 Attachmentss
27. Has Respondent ever arranged for disposal or treatment or arranged for transportation for disposal or treatment of materials to any Property (including the	To the best of PGE's knowledge, after reasonable inquiry, waste and materials were not disposed of at the Riverview Substation. To the best of PGE's knowledge, after reasonable inquiry, no wastes were disposed of from the Riverview Substation into the Willamette River.	

EPA Question	Response	Records/Information Available
Willamette River) within the Investigation Area? If so, please identify every Property that Respondent's materials were disposed or treated at in the Investigation Area. In addition, identify:		
a. the persons with whom the Respondent made such arrangements;	In general, waste and used material from within the Investigation Area are either transported directly to the appropriate disposal facility or transported to a PGE waste and material handling facility for interim storage prior to disposal/recycling/destruction. Historically, PGE's waste and material handling facilities were Harborton Substation, Sellwood Substation, PSC, or Wilsonville (only soil/gravel with < 50 ppm PCBs). Currently, PGE's waste and material handling facilities are PSC and Wilsonville (only soil/gravel with < 50 ppm PCBs). The Harborton Substation is within the Investigation Area and is addressed in a separate 104(e) response. To the best of PGE's knowledge, after reasonable inquiry, companies/persons with whom PGE has made arrangements for disposal/recycling/destruction of wastes and/or used material for PGE properties in Oregon are listed in the document (Q40_Waste-Materials Receivers and Carriers.pdf) attached in response to Question 40. To the best of PGE's knowledge, after reasonable inquiry, those companies currently used are listed in the document (Q21a_Waste Stream Summary.pdf) attached in response to Question 21a. Of those listed in the document (Q40_Waste-Materials Receivers and Carriers.pdf) attached in response to Question 40, those companies within the Investigation Area are summarized in the attached document (Q27_Waste-Materials Receivers within IA.pdf) and include the following: • Acme Trading & Supply – located at 4927 NW Front Ave, Portland, OR • AGG Enterprises Inc. – located at 555 N Channel Ave, Portland, OR • Ash Grove Cement Company – located at 13939 N Rivergate Blvd, Portland, OR • Bingham Willamette (now Sulzer Pumps) – located at 2800 NW Front Ave, Portland, OR • Calbag Metals – located at 2495 NW Nicolai St and 12005 N Burgard Way, Portland, OR • Cascade General Inc – located at 5555 N Channel Rd, Portland, OR • General Electric Company – located at 2535 NW 28th Ave, Portland, OR • Northwest Natural Gas Co – located at 123 NW Flanders, Portland, OR • Nudleman & Sons – located at 2707 NW Nela, Portland, OR • Oregon Hydrocarbon/TPS Technologies – located at 9333 N Harborgate St, Portland, OR • Port of Portland – located at 121 NW Everett Street, Portland, OR • Schnitzer Steel – located at 3200 NW Yeon Ave and 12005 N Burgard Way, Portland, OR • Tyee Construction Company of Oregon – located at 12005 Burgard Way, Portland, OR • Univar – located at 3950 NW Yeon Ave and 10821 N Lombard St, Portland, OR • Western Steel Cast – located at 3070 SW Moody, Portland, OR To the best of PGE's knowledge, after reasonable inquiry, none of the companies listed above have been identified as having directly received waste from Riverview Substation based on the response and documents attached for Questions 21 and 52.	See Question 27 Attachment Q27_Waste-Materials Receivers within IA.pdf Also see Question 40 Attachment Q40_Waste-Materials Receivers and Carriers.pdf Also see all Question 21 Attachments Also see all Question 52 Attachments

EPA Question	Response	Records/Information Available
	Although there is no indication that the companies/persons listed above have directly received wastes from Riverview Substation, because these companies have historically received or currently receive waste and/or used materials from the PGE waste and material handling facilities they may have received waste and/or used material from Riverview Substation. General Electric Company was used as a transformer transfer facility by PGE. It is unknown whether any Riverview Substation equipment went through this facility. The Harborton Substation, a historical PGE waste and materials handling facility, is within the Investigation Area and is addressed in a separate 104(e) response. Also see the supplemental submittal of documentation from other PGE facilities that may have received waste and materials from the Riverview Substation (Supplemental Submittal S7).	
b. every date on which Respondent made such arrangements;	To the best of PGE's knowledge, after reasonable inquiry, none of the companies listed in response to Question 27a have been identified as having directly received waste from the Riverview Substation based on the response and documents attached for Questions 21 and 52. Available general PGE contract, agreements, or other arrangements for disposal, treatment, or recycling are provided in the Harborton Substation 104(e) response, the supplemental submittal of documentation from other PGE facilities that may have received waste and materials from the Riverview Substation (Supplemental Submittal S7), and the supplemental submittal of general PGE contracts, agreements, or other arrangements for disposal, treatment, or recycling (Supplemental Submittal S6).	See all Question 21 Attachments
c. the nature, including the chemical content, characteristics, physical state (e.g., solid, liquid) and quantity (volume and weight) of all materials involved in each such arrangement;	Historically, used oil and maintenance waste (including petroleum hydrocarbon and/or PCB contaminated waste) were transported to Harborton Substation, Sellwood Substation, or PSC for interim storage prior to disposal or recycling. Currently, used oil and maintenance waste are transported to PSC for interim storage prior to disposal or recycling. The amount of waste generated during substation operations associated with equipment maintenance varied between substations/properties. To the best of PGE's knowledge, after reasonable inquiry, PGE does not know the exact quantities/characteristics of oil or routine maintenance waste removed from the substations/properties. The Harborton Substation is within the Investigation Area and is discussed in a separate 104(e) response. Also see the supplemental submittal of documentation from other PGE facilities that may have received waste and materials from the Riverview Substation (Supplemental Submittal S7). To the best of PGE's knowledge, after reasonable inquiry, disposal/recycling facilities with which PGE has made arrangements for disposal/recycling of wastes for PGE properties in Oregon are listed in the document (Q40_Waste-Materials Receivers and Carriers.pdf) attached in response to Question 40. The document (Q21a_Waste Stream Summary.pdf) attached in response to Question 21a summarizes the current various waste stream types, the current initial carrier, the current interim storage (if applicable), the current secondary carrier (if applicable), and the current disposal/recycling facility. Of those listed, the following is a description of the waste and used material disposed/recycled at facilities within the Investigation Area: • Acme Trading & Supply – Used (but not obsolete) transformers (solid) and ballasts (solid) • AGG Enterprises Inc. – Mixed non-hazardous waste (various) and recyclables	See all Question 15 Attachments Also see Question 21 Attachment Q21a_Waste Stream Summary.pdf Also see Question 40 Attachment Q40_Waste-Materials Receivers and Carriers.pdf

EPA Question	Response	Records/Information Available
	• Ash Grove Cement Company – PCB waste: oil (liquid) with PCBs < 50 ppm • Bingham Willamette (now Sulzer Pumps) – Used (but not obsolete) transformers (solid) and oil circuit breakers (solid) • Calbag Metals – Scrap metal (solid) and empty aerosol cans (solid) • Cascade General Inc – Non-hazardous liquid waste/material: mineral oil (liquid) with PCBs < 50 ppm • General Electric Company – Oil with PCBs ≥ 50 ppm (liquid) and obsolete equipment (solid) with trace levels of PCBs ≥ 50 ppm Used (but not obsolete) transformers (solid) • Northwest Natural Gas Co – Transformer oil (liquid) • Nudleman & Sons – Scrap copper (solid • Oregon Hydrocarbon/TPS Technologies – Solidified contents of USTs (solid) and petroleum hydrocarbon-contaminated soil (solid) • Port of Portland – Used (but not obsolete) transformers (solid) and ballasts (solid) • Schnitzer Steel – Scrap metal (solid) and empty aerosol cans (solid) • Tyee Construction Company of Oregon – Transformers (solid) • Univar – Used transformer/insulating oil (liquid, <1 ppm PCBs), used rags/absorbent material from leaks or spills (solid, <5 ppm PCBs), and used transformer/insulating oil (liquid, ≥ 50 ppm PCBs) • Western Steel Cast – Transformers (solid) To the best of PGE's knowledge, after reasonable inquiry, there are no companies listed above that have directly received waste from Riverview Substation based on the response and documents attached for Questions 21 and 52. The companies/persons listed above have historically received or currently receive waste and/or used materials from the PGE waste and material handling facilities, which may have included waste and/or used material from Riverview Substation. The Harborton Substation, a historical PGE waste and material handling facility, is within the Investigation Area and is addressed in a separate 104(e) response. Also see the supplemental submittal of documentation from other PGE facilities that may have received waste and materials from the Riverview Substation (Supplemental Submittal S7).	
d. in general terms, the nature and quantity of the non- hazardous materials involved in each such arrangement;	See the response to Question 27c.	
e. in general terms, the nature and quantity of any hazardous materials involved in each such arrangement;	See the response to Question 27c.	
f. the owner of the materials involved in each such arrangement, if not Respondent;	Not applicable.	
g. all tests, analyses, analytical results or manifests concerning each hazardous material involved in such transactions;	See the response to Question 27c.	

EPA Question	Response	Records/Information Available
h. the address(es) for each Property, precise locations at which each material involved in such transactions actually was disposed or treated;	See the response to Question 27a.	
i. the owner or operator of each facility at which hazardous or non-hazardous materials were arranged to be disposed at within the Investigation Area;	See the response to Question 27a.	
j. who selected the location to which the materials were to be disposed or treated;	PGE personnel in charge of environmental matters and consultants. See the response and documents attached for Question 38, as well as the documents attached in response to Question 6g.	See all Question 38 Attachments Also see Question 6 Attachments Q06g_Bullseye articles.pdf Q06g_Organizational Charts.pdf Q06g_Distribution and System Planning Information.pdf Q06g_HRIC Structure Report 2008.pdf Q06g_HRIS Structure Info 1982-2007.pdf
k. who selected the Property as the location at which hazardous materials were to be disposed or treated; and	PGE personnel in charge of environmental matters and consultants. See the response and documents attached for Question 38, as well as the documents attached in response to Question 6g.	See all Question 38 Attachments Also see Question 6 Attachments Q06g_Bullseye articles.pdf Q06g_Organizational Charts.pdf Q06g_Distribution and System Planning Information.pdf Q06g_HRIC Structure Report 2008.pdf Q06g_HRIS Structure Info 1982-2007.pdf
l. any records of such arrangement and each shipment.	See the response to Question 27c.	
28. Describe the plants and other buildings or structures where Respondent carried out its operations at each Property within the Investigation Area (excluding locations where ONLY clerical/office work was performed).	Riverview Substation Buildings / Structures include: • Control building – 5 ft by 5 ft prefabricated, steel panel construction, single level building. • Transmission structure – Open frame structural steel supporting 115kv bus • Distribution structure – open frame structural steel supporting 13kv bus. • Capacitor racks – open frame structural steel supporting station capacitors and associated equipment. For further details, see the response to Question 13d.	
29. Provide a schematic diagram or flow chart that fully describes and/or illustrates the Respondent's operations on each Property.	Historical operations on this property include building construction, equipment installation, power distribution (unmanned), equipment maintenance, and equipment decommissioning. Current operations on this property are limited to equipment installation, power distribution (unmanned), equipment maintenance, and equipment decommissioning.	Question 29 Attachments Q29_Substation Lifecycle.pdf Q29_Operations-Waste Schematic.pdf

EPA Question	Response	Records/Information Available
	See the attached documents.	
30. Provide a brief description of the nature of Respondent's operations at each location on each Property including:		
a. the date such operations commenced and concluded; and	The parcel (Parcel A) comprising Riverview Substation was purchased from Riverview Cemetery Association on 9 February, 1949. Operation of the Riverview substation commenced in 1962 and continues to the present.	
b. the types of work performed at each location, including but not limited to the industrial, chemical, or institutional processes undertaken at each	Equipment maintenance activities: Maintenance of equipment, generation of maintenance waste, disposal of maintenance waste, and removal of obsolete equipment. Construction activities: Excavation, erection of substation structures, welding, painting, wiring, carpentry, installing equipment, and assembly of large equipment. Substation activities (1962-present): Power distribution, operation of equipment, routine maintenance, cleaning, inspection of equipment, minor painting, transfer of oil from supply tanks to equipment, transfer of oil between equipment and temporary storage tanks, renewal of lubricants and various consumable fluids, reconfiguration of equipment, upgrade of equipment components, and testing and calibration of equipment. See the documents attached in response to Question 29, as well as the responses to Questions 5g, 13d, and 13k.	See all Question 29 Attachments
31. If the nature or size of Respondent's operations changed over time, describe those changes and the dates they occurred.	See responses provided for Questions 5d, 13d, and 13k.	
32. List the types of raw materials used in Respondent's operations, the products manufactured, recycled, recovered, treated, or otherwise processed in these operations.	Substation activities: No raw materials are/were used in the operation of the substation. No products are/were manufactured, recycled, recovered, treated, or processed during operation.	
33. Provide copies of Material Safety Data Sheets (MSDS) for materials used in the Respondent's operations.	The products/materials currently used at PGE properties within Oregon and potentially used at the Riverview Substation are listed in the attached document (Q33_EMC List.pdf). Material Safety Data Sheets (MSDS) for these products/materials are provided in a supplemental submittal (Supplemental Submittal S2). Products/materials used in the past are similar to those used currently.	Question 33 Attachment Q33_EMC List.pdf

EPA Question	Response	Records/Information Available
34. Describe the cleaning and maintenance of the equipment and machinery involved in these operations, including but not limited to:	Substation Maintenance Activities: Routine visual inspections are performed once a month on most of the electrical equipment, including transformers, breakers, switches, regulators, motor operators, meters & relays, and batteries. Lighting systems are visually inspected and operation tests are performed once a month. Inspection of the control systems is performed as needed. Substation Cleaning Activities: Cleaning of electrical equipment varies. Large transformers are cleaned annually, breakers are cleaned based on the number of operations and time since the last inspection, switches are cleaned as needed, insulators are cleaned during scheduled outages, regulators are cleaned or replaced as needed, meters and relays are cleaned during routine calibration, batteries are cleaned approximately twice a year, and the non-electrical surfaces of control systems are cleaned during major construction. Please see the attached cleaning and maintenance activities document (Q34_Maintenance Activities.pdf) for further details, as well as the response and documents for Question 29, and the document (Q21a_Waste Stream Summary.pdf) attached in response to Question 21a.	Question 34 Attachment Q34_Maintenance Activities.pdf Also see Question 21 Attachment Q21a_Waste Stream Summary.pdf Also see all Question 29 Attachments
a. the types of materials used to clean/maintain this equipment-machinery;	The primary materials that may have been used for equipment maintenance include transformer oil, solvents, denatured alcohol, degreasers, lubricating grease, hydraulic fluid, and paint.	
b. the monthly or annual quantity of each such material used.	The materials used for equipment maintenance are/were not stored onsite, but are brought to the site as needed. To the best of PGE's knowledge, after reasonable inquiry, no detailed logs of exact quantities of maintenance materials used or oil/routine maintenance waste removed from the substations/properties are available.	
c. the types of materials spilled in Respondent's operations;	Materials potentially spilled during operations include oil and fluid from equipment spills or leaks.	
d. the materials used to clean up those spills;	The following are PGE general spill response procedures. • Minor equipment spills or leaks are cleaned up using sorbent materials. • Major spills are cleaned up using sorbent materials, berms, and necessary equipment. For further details, see the responses and documents for Question 19 and the response and documents (Q21a_Waste Stream Summary.pdf and Q21c_Cleaning Up Small Mercury Spills 2008.pdf) for Question 21. The mercury spill cleanup guide is a general PGE guidance and does not imply that mercury spills have ever occurred at this Site.	See all Question 19 Attachments Also see Question 21 Attachments Q21a_Waste Stream Summary.pdf Q21c_Cleaning Up Small Mercury Spills 2008.pdf
e. the methods used to clean up those spills; and	Minor equipment spills or leaks are cleaned up as needed by wiping up the oil/fluid with on-hand absorbent materials. Major spills are immediately reported to the System Control Center. PGE's spill response crew is dispatched to clean up the oil. Soiled material is placed into a marked barrel and disposed of properly. For further details, see the responses and documents for Question 19 and the response and documents (Q21a_Waste Stream Summary.pdf and Q21c_Cleaning Up Small Mercury Spills 2008.pdf) for Question 21. The mercury spill cleanup guide is a general PGE guidance and does not imply that mercury spills have ever occurred at the Riverview Substation.	See all Question 19 Attachments Also see Question 21 Attachments Q21a_Waste Stream Summary.pdf Q21c_Cleaning Up Small Mercury Spills 2008.pdf
f. where the materials used to clean up those spills were disposed of.	Materials potentially contaminated with PCBs are sealed in barrels and transferred to PGE's waste and material handling facility (historically at Harborton Substation, Sellwood Substation, or PSC; currently at PSC). If not ascertainable from testing the equipment generating the spill,	See all Question 21 Attachments

EPA Question	Response	Records/Information Available
	these wastes are tested to determine a disposal location appropriate for its PCB concentration once they are received at the waste and material handling facility. Materials containing PCBs are disposed at different facilities depending on the concentration of the originally spilled materials, if known, or the concentration in the waste materials. Wastes not contaminated with PCBs are containerized separately and transferred to PGE's waste and material handling facility (historically at Harborton Substation, Sellwood Substation, or PSC; currently at PSC). For further details, see the response and documents for Question 21.	
35. Describe the methods used to clean up spills of liquid or solid materials during Respondent's operation.	Minor spills or leaks are cleaned up as they occur. The fluid is wiped up with on-hand absorbent materials. Major spills are immediately reported to the PGE System Control Center. PGE's spill response crew is dispatched to clean up the oil. Soiled material is placed into a marked barrel and disposed of properly. For further details, see the responses and documents for Question 19 and the response and documents (Q21a_Waste Stream Summary.pdf and Q21c_Cleaning Up Small Mercury Spills 2008.pdf) for Question 21. The mercury spill cleanup guide is a general PGE guidance and does not imply that mercury spills have ever occurred at the Riverview Substation.	See all Question 19 Attachments Also see Question 21 Attachments Q21a_Waste Stream Summary.pdf Q21c_Cleaning Up Small Mercury Spills 2008.pdf
36. For each type of waste (including by-products) from Respondent's operations, including but not limited to all liquids, sludges, and solids, provide the following information: a. its physical state; b. its nature and chemical composition; c. its color; d. its odor. e. the approximate monthly and annual volumes of each type of waste (using such measurements as gallons, cubic yards, pounds, etc.); and f. the dates (beginning & ending) during which each type of waste was produced by Respondent's operations.	PGE operational waste varies month to month and year to year. The following is a summary of the type of wastes generated from the historical and current operations at the Site. Remediation waste includes: • Soil/gravel/absorbent materials contaminated with PCBs and petroleum hydrocarbons– solid, petroleum hydrocarbon- and PCB-contaminated soil/gravel/absorbents, brown/black/grey, petroleum hydrocarbon odor, one barrel, July 2002 • Soil/concrete/gravel contaminated with PCBs and petroleum hydrocarbons – solid, approximately 300 tons, December 2004 • Soil and gravel contaminated with petroleum hydrocarbons – solid, petroleum hydrocarbon-contaminated soil and gravel, grey/black, petroleum hydrocarbon odor, three cubic feet, December 2005 General materials/wastes potentially contaminated with PCBs include: • Used/excess lubricants, oils, and other fluids – liquid, petroleum hydrocarbons, various, petroleum hydrocarbon odor, unknown, 1960s-present • Obsolete equipment (e.g., transformers, capacitors) – solid, metal, metallic/petroleum hydrocarbon odor, unknown, 1960s-present • Rags used to clean equipment – solid, fabric material, various, alcohol-petroleum hydrocarbon odor, unknown, 1960s-present • Absorbents used to clean up leaks or spills – solid, absorbent material, various, petroleum hydrocarbon odor, unknown, 1960s-present • Ballasts – solid, metallic, electrical lamp component, various, no odor, unknown, 1960s-present • Soils removed in response to spills or leaks – solid, petroleum hydrocarbon- and PCB-contaminated soil, black, petroleum hydrocarbon-sweet odor, unknown, 1960s-present	See all Question 21 Attachments Also see all Question 15 Attachments Also see Question 33 Attachment Q33_EMC List.pdf Also see Question 52 Attachment Q52_Riverview_WAL_12-17-2004.pdf Also see Question 62 Attachment Q62_2005-12-12_600 SW Taylors Ferry.pdf

EPA Question	Response	Records/Information Available
	General materials/wastes not contaminated with PCBs include: • Solvents – liquid, oil-based chemical solvents, petroleum hydrocarbon smell, unknown quantity, 1960s-present • Batteries – solid, alkaline/zinc-carbon/lithium-based batteries, no odor, unknown quantity, 1960s-present • Scrap metal – solid, metallic (e.g., steel), none to metallic odor, unknown quantity, 1960s-present • Light bulbs – solid, incandescent and fluorescent light bulbs, no odor, unknown quantity, 1960s-present • General garbage – mixed composition, various colors, various odors, unknown quantity, 1960s-present • Construction debris – mixed composition, various colors, various odors, unknown quantity, 1960s-present • Soils removed during excavation for equipment/building demolition/installation – solid, soil, brown, organic odor, unknown, 1960s-present Also see the MSDS documents provided in a supplemental submittal (Supplemental Submittal S2), documents attached in response to Question 15, and the responses and documents for Question 21. Also see the separate 104(e) response for the Harborton Substation (historically at PGE waste and used material handling facility) and the supplemental submittal of documentation from other PGE facilities that may have received waste and materials from the Riverview Substation (Supplemental Submittal S7).	
37. Provide a schematic diagram that indicates which part of Respondent's operations generated each type of waste, including but not limited to wastes generated by cleaning and maintenance of equipment and machinery and wastes resulting from spills of liquid materials.	See the response and documents for Question 29, as well as the document (Q21a_Waste Stream Summary) attached in response to Question 21a.	See all Question 29 Attachments Also see Question 21 Attachment Q21a_Waste Stream Summary
38. Identify all individuals who currently have and those who have had responsibility for Respondent's environmental matters (e.g. responsibility for the disposal, treatment, storage, recycling, or sale of Respondent's wastes). Also provide each individual's job title, duties, dates performing those duties, supervisors for those duties, current position or the date of the individual's resignation, and the nature of	See the attached documents for a listing of those responsible for environmental matters 1980 - present. See the attached 1993 and 1997 Job Descriptions for Environmental Services Manager. See the attached document for management structural information 1982-2008. Also see the documents attached in response to Question 6g.	Question 38 Attachments Q38_Res. For Environmental Matters.pdf Q38_Mgr. Env. Svc. Job description – 1993.pdf Q38_Mgr. Env. Svc. Job description – 1997.pdf Q38_HRIS Structure Info. 1982-2008-4.0.pdf Also see Question 6 Attachments Q06g_Bullseye articles.pdf Q06g_Organizational Charts.pdf Q06g_Distribution and System Planning Information.pdf Q06g_HRIC Structure Report 2008.pdf Q06g_HRIS Structure Info 1982-2007.pdf

EPA Question	Response	Records/Information Available
the information possessed by such individuals concerning Respondent's waste management.		
39. For each type of waste describe Respondent's contracts, agreements or other arrangements for its disposal, treatment, or recycling.	In general terms, waste and used material was historically either transferred directly to the disposal facility, or to one of the following PGE waste and used material handling facilities for interim storage: Harborton Substation, Sellwood Substation, PSC, or Wilsonville (only soil/gravel with < 50 ppm PCBs). Currently, in general terms, waste and used materials are either transferred directly to the disposal facility or to one of the following PGE waste and used material handling facilities: PSC or Wilsonville (only soil/gravel with < 50 ppm PCBs). To the best of PGE's knowledge, after reasonable inquiry, the available contracts, agreements, or other arrangements for disposal, treatment, or recycling for this specific facility are provided with the documentation attached in response to Question 21. Waste disposal permits are attached in response to Question 52. Additional available general PGE contract, agreements, or other arrangements for disposal, treatment, or recycling are provided in the Harborton Substation 104(e) response, the supplemental submittal of documentation from other PGE facilities that may have received waste and materials from the Riverview Substation (Supplemental Submittal S7), and the supplemental submittal of general PGE contracts, agreements, or other arrangements for disposal, treatment, or recycling (Supplemental Submittal S6).	See all Question 21 Attachments Also see all Question 52 Attachments
40. Provide copies of such contracts and other documents reflecting such agreements or arrangements, including but not limited to: a. state where Respondent sent each type of its waste for disposal, treatment, or recycling; b. identify all entities and individuals who picked up waste from Respondent or who otherwise transported the waste away from Respondent's operations (these companies and individuals shall be called "Waste Carriers" for purposes of this Information Request); c. if Respondent transported any of its wastes away from its operations, please so indicate;	In general terms, waste and used material was historically either transferred directly to the disposal facility or to one of the following PGE waste and used material handling facilities for interim storage: Harborton Substation, Sellwood Substation, PSC, or Wilsonville (only soil/gravel with < 50 ppm PCBs). Currently, in general terms, waste and used materials are either transferred directly to the disposal facility or to one of the following PGE waste and used material handling facilities: PSC or Wilsonville (only soil/gravel with < 50 ppm PCBs). To the best of PGE's knowledge, after reasonable inquiry, those companies/persons with whom PGE currently has arrangements for disposal/recycling/destruction of wastes and/or used material are listed in the document (Q21a_Waste Stream Summary.pdf) attached in response to Question 21a. The document summarizes the current various waste stream types, the current initial carrier, the current interim storage (if applicable), the current secondary carrier (if applicable), and the current disposal facility. To the best of PGE's knowledge, after reasonable inquiry, all companies/persons with whom PGE has made arrangements for disposal/recycling/destruction of wastes and/or used material for PGE properties in Oregon are listed in the attached document (Q40_Waste-Materials Receivers and Carriers.pdf). The following describes the current waste and used material arrangements at PSC, which would have been similar to the historic waste arrangements at Harborton Substation, Sellwood Substation, and PSC (although it is likely that different contractors/service providers were	Question 40 Attachment Q40_Waste-Materials Receivers and Carriers.pdf Also see all Question 21 Attachments Revise Q21a_Waste Stream Summary.pdf based on Rivergate Also see Question 27 Attachment Q27_Waste-Materials Receivers within IA.pdf Also see all Question 52 Attachments

EPA Question	Response	Records/Information Available
d. for each type of waste specify which Waste Carrier picked it up; e. indicate the ultimate disposal/recycling/treatment location for each type of waste. f. provide all documents indicating the ultimate disposal/recycling/treatment location for each type of waste; and g. state the basis for and provide any documents supporting the answer to the previous question.	historically utilized): • Earth Protection Services, Inc. (EPSI) recycles the variety of recyclable waste and used materials from the PSC (i.e., ballasts, batteries, and mercury containing articles). New empty containers are exchanged for the filled containers. If there are any concerns about the integrity of the new containers or any other concerns, PGE's Environmental Services (which processes all EPSI invoices) is called to ensure that the vendor promptly corrects the problem. EPSI is a nationally recognized recycling vendor. • Used transformer/insulating oil (< 1 ppm PCBs) is recycled in house by PGE or by Univar USA Inc.. Univar also picks up and transports used transformer/insulating oil (≥ 50 ppm PCBs) to either Clean Harbors Deer Park or to Clean Harbors Aragonite. In addition, Univar picks up and transports used rags and absorbent material (≥ 50 ppm PCBs) to Arlington Landfill. • Used rags and absorbent material (1 to 50 ppm PCBs) is picked up by NRC Environmental Services and transported to Columbia Ridge Landfill. • Used transformer/insulating oil (1 to 50 ppm PCBs) is picked up by Transformer Technologies and is incinerated by Transformer Technologies or recycled at Environmental Management of Kansas City. • Non-PCB containing used oil (e.g., hydraulic fluids, compressor oil, and motor oil), used oil filters, and used antifreeze from the maintenance shop are collected in labeled 55-gallon drums and recycled or used for energy recovery by Thermo Fluids. • All parts washers are maintained under license by Safety Kleen which performs monthly service calls. Safety Kleen recycles all used non-hazardous solvents and brake solution, processing the solvent and brake solution for reuse. • Aerosol can drainings are collected in industry standard aerosol can puncturing devices. At PSC, punctured cans are recycled by CalBag Metals Recycling (non-ferrous metal) or Schnitzer Steel (ferrous metal). When the drums are near full, they are sampled by a licensed laboratory to help characterize the waste prior to collection. Other non-PCB-contaminated scrap metal is also recycled by CalBag Metals Recycling (non-ferrous metal) or Schnitzer Steel (ferrous metal). • Hazardous solvents and paint drainings from aerosol cans are picked up by Veolia Environmental Services and incinerated at Veolia Es Technical Solutions. • Non-PCB-contaminated used equipment parts (e.g., gaskets, hoses, and air filters), auto parts (brake pads, belts, and air filters), and general trash are picked up by waste management and transported to various waste management landfills. • Oil-filled obsolete transformers and other electrical equipment (< 50 ppm PCBs) are transported to Transformer Technologies. Oil-filled obsolete transformers and other	

EPA Question	Response	Records/Information Available
	electrical equipment (≥ 50 ppm PCBs) are sent to either Clean Harbors Deer Park or Clean Harbors Argonite for incineration. Oil-filled ballasts (> 1 ppm PCBs) are sent to Arlington Landfill or Clean Harbors Deer Park. • Drained obsolete equipment (< 50 ppm PCBs) is recycled by Coleman Metals and drained obsolete equipment (50 to 500 ppm PCBs) is disposed of at Arlington Landfill. Soil and gravel removed during excavations (from upgrades, spill response, or remediation) is tested and disposed of appropriately. The soil and gravel are either transported directly from the site to the disposal facility or are transported to Wilsonville (only soil/gravel with < 50 ppm PCBs) and/or PSC for interim storage before bulk disposal at a location dependant upon PCB-content. To the best of PGE's knowledge, after reasonable inquiry, the available contracts, agreements, or other arrangements for disposal, treatment, or recycling for this specific facility are provided with the waste and materials disposal, treatment, and recycling documentation attached in response to Question 21. Waste disposal permits are attached in response to Question 52. Also see the response and document attached in response to Question 27. Additional available general PGE contracts, agreements, or other arrangements for disposal, treatment, or recycling are provided in the Harborton Substation 104(e) response (historically a PGE waste and material handling facility within the Investigation Area), the supplemental submittal of documentation from other PGE facilities that may have received waste and materials from the Riverview Substation (Supplemental Submittal S7), and the supplemental submittal of general PGE contracts, agreements, or other arrangements for disposal, treatment, or recycling (Supplemental Submittal S6).	
41. Describe all wastes disposed by Respondent into Respondent's drains including but not limited to: a. the nature and chemical composition of each type of waste; b. the dates on which those wastes were disposed; c. the approximate quantity of those wastes disposed by month and year; d. the location to which these wastes drained (e.g. septic system or storage tank at the Property, pre-treatment plant, Publicly Owned Treatment Works (POTW), etc.); and e. whether and what pretreatment was provided.	To the best of PGE's knowledge, after reasonable inquiry, other than the stormwater drainage, no drains are/were present at the Riverview Subsation. To the best of PGE's knowledge, after reasonable inquiry, no wastes are/were disposed of into the stormwater drainage at the Riverview Substation. There are/were no waste treatment/pretreatment facilities at the Riverview Substation. For further details on site stormwater, see the response to Questions 13i, 18, and 19.	

EPA Question	Response	Records/Information Available
42. Identify any sewage authority or treatment works to which Respondent's waste was sent.	To the best of PGE's knowledge, after reasonable inquiry, there were no sewage authority or treatment works to which the Riverview Substation waste was sent.	
43. Describe all settling tank, septic system, or pretreatment system sludges or other treatment wastes resulting from Respondent's operations.	To the best of PGE's knowledge, after reasonable inquiry, there were no settling tanks, septic systems, or pretreatment system sludges or other treatment wastes resulting from operations at the Riverview Substation.	
44. If applicable, describe the facilities, processes and methods Respondent or Respondent's contractor used, and activities engaged in, either currently or in the past, related to ship building, retrofitting, maintenance or repair, including, but not limited to, dry-docking operations, tank cleaning, painting and re-powering.	Not applicable. To the best of PGE's knowledge, after reasonable inquiry, PGE did not engage in ship building, retrofitting, maintenance, or repair activities at the Riverview Substation.	
45. Describe any hazardous substances, wastes, or materials used or generated by the activities described in response to the previous Question and how these hazardous substances, materials and wastes were released or disposed of.	Not applicable. To the best of PGE's knowledge, after reasonable inquiry, PGE did not engage in ship building, retrofitting, maintenance, or repair activities at the Riverview Substation.	
46. Provide copies of any records you have in your possession, custody or control relative to the activities described in response to the previous two Questions.	Not applicable. To the best of PGE's knowledge, after reasonable inquiry, PGE did not engage in ship building, retrofitting, maintenance, or repair activities Riverview Substation.	
47. Describe any process or activity conducted on a Property identified in response to Question 4 involving the acquisition, manufacture, use, storage, handling, disposal or release or threatened release of polychlorinated	In general, PGE replaces PCB-containing or potentially PCB-containing equipment (e.g., transformers, capacitors, lamp ballasts, circuit breakers, bushings, and step regulators) with non-PCB oil containing equipment (< 50 ppm PCBs) as they are removed from service. The primary materials that may have been used for equipment maintenance include dielectric fluids (oil) and transformer oil, which may have historically contained PCBs. To the best of PGE's knowledge, after reasonable inquiry, other than minor repairs or work on large equipment, electrical equipment maintenance was generally not performed on site. Smaller equipment was	See Question 15 Attachments Q15_11-30-2004_part a.pdf Q15_11-30-2004_part b.pdf Also see Question 21 Attachment Q21a_Oil Filled Equipment.pdf Q21c_Riverview_WA request_07-11-2002.pdf

EPA Question	Response	Records/Information Available
biphenyl(s) ("PCB(s)" or PCB(s)-containing materials or liquids.	taken out of service and transported to PGE's waste and material handling facility for repairs and retrofitting. See the document (Q21a_Oil Filled Equipment.pdf) attached in response to Question 21a for the list of oil-filled equipment at the Riverview Substation. The document identifies the position of the oil-filled equipment, the serial number of the equipment, the year manufactured, the detected PCB concentrations, and the date tested for PCBs, and the total volume of oil. Several of the oil-filled equipment listed in the document are assumed to contain less than 1 ppm PCBs because they were manufactured after 1978. Soil characterization sampling was conducted in November 2004, prior to upgrading the stormwater and secondary spill containment system. A total of 28 samples were analyzed for PCBs and total petroleum hydrocarbons. Four samples detected PCBs with concentrations less than 1 ppm. Based on these results, approximately 300 tons of soil and gravel in the vicinity of these four samples was excavated and disposed of at the Hillsboro Landfill in December 2004. See the documents (Q15_11-30-2004_part a.pdf and Q15_11-30-2004_part b.pdf) attached in response to Question 15 and the document (Q52_Riverview_WAL_12-17-2004.pdf) attached in response to Question 52. One barrel of petroleum hydrocarbon-contaminated soil/gravel/absorbent materials with 14 ppm PCBs was transported from the Riverview Substation to Wilsonville, a PGE waste and materials handling facility, on July 3, 2002. This waste was subsequently disposed of in a Waste Management operated landfill. See the document (Q21c_Riverview_WA request_07-11-2002.pdf) attached in response to Question 21c. See the documents attached in response to Question 29. Also see the annual PCB reports (1978-2007) for PGE (all PGE sites combined), which are provided in a supplemental submittal (Supplemental Submittal S3). The 2008 annual PCB report is not included in the supplemental submittal because it has not yet been completed.	Also see Question 29 Attachments Q29_Substation Lifecycle.pdf Q29_Operations-Waste Schematic.pdf Also see Question 52 Attachment Q52_Riverview_WAL_12-17-2004.pdf
48. For each process or activity identified in response to the previous Question, describe the dates and duration of the activity or process and the quantity and type of PCB(s) or PCB(s) containing materials or liquids.		
a. the manufacturer and serial number of each transformer; b. the quantity of oil in each transformer; c. the concentrations of PCB contained in the transformer oil; d. the time period or periods in which	Electrical equipment was first installed at the Riverview Substation by 1962 during its initial construction. Since that time, various pieces of equipment has been installed, upgraded, and replaced. The substation remains in use today. See the document (Q21a_Oil Filled Equipment.pdf) attached in response to Question 21a for the list of oil-filled substation equipment currently at the Riverview Substation. The document identifies the position of the oil filled equipment, the serial number of the equipment, the year manufactured, the detected PCB concentrations, the test date for PCBs, and the total volume of oil. Several pieces of the oil-filled equipment listed in the document (Q21a_Oil Filled Equipment.pdf) are assumed to contain less than 1 ppm PCBs because they were manufactured after 1978.	See Question 21 Attachment Q21a_Oil-Filled Equipment.pdf

EPA Question	Response	Records/Information Available
these transformers were sent to the Property;		
e. details about how each transformer was handled or stored or otherwise processed;	Equipment is handled by trained qualified personnel. Equipment is energized and in service. Obsolete equipment is drained prior to disposal/recycling, if possible. Drained oil is incinerated or recycled, depending on its PCB content. Obsolete equipment may be transferred to a PGE waste and used materials handling facility for interim storage prior to disposal/recycling. The obsolete equipment is incinerated, landfill disposed, or recycled based on PCB content and structural composition. See the document (Q21a_Waste Stream Summary.pdf) attached in response to Question 21a. Some used, but not obsolete, transformers have been sold to other companies/persons. These are documented in the Supplemental Submittal S7 (documentation from facilities that may have received waste and materials from properties within the Investigation Area). For further information, see the response to Questions 21, 27, and 40. Also see the separate 104(e) response for the Harborton Substation, which was also historically a PGE waste and material handling facility and the supplemental submittal of documentation from other PGE facilities that may have received waste and materials from the Riverview Substation (Supplemental Submittal S7).	See Question 21 Attachment Q21a_Waste Stream Summary.pdf
f. information describing the contractual relationship Respondent had, if any, with owners or users of the respective transformers, including but not limited to, liability for disposal;	Not applicable. Equipment is owned by PGE.	
g. information on any other oil filled electrical equipment at the Property, and;	See the document attached in response to Question 21a (Q21a_2008_Oil Filled Equipment.pdf), which lists the current oil-filled equipment at the Riverview Substation.	See Question 21 Attachment Q21a_Oil-Filled Equipment.pdf
h. complete copies of any contracts, invoices, receipts, or other documents related to the transformers or other oil filled electrical equipment to the Property.	To the best of PGE's knowledge, after reasonable inquiry, the available contracts, agreements, or other arrangements for disposal, treatment, or recycling for this specific facility are provided with the waste and materials disposal, treatment, and recycling documentation attached in response to Question 21. Waste disposal permits are attached in response to Question 52. Additional available general PGE contracts, agreements, or other arrangements for disposal, treatment, or recycling are provided in the Harborton Substation 104(e) response, the supplemental submittal of documentation from other PGE facilities that may have received waste and materials from the Riverview Substation (Supplemental Submittal S7), and the supplemental submittal of general PGE contracts, agreements, or other arrangements for disposal, treatment, or recycling (Supplemental Submittal S6).	See all Question 21 Attachments Also see all Question 52 Attachments
49. For each process or activity identified in response to the previous two Questions, identify the location of the process or activity on the Property.	See the document (Q21a_Oil Filled Equipment.pdf) attached in response to Question 21a, which lists the current oil-filled equipment at the Riverview Substation, including the position of the equipment. To the best of PGE's knowledge, after reasonable inquiry, PGE is not aware of any other processes or activities on the property, either currently or historically. Also see the documents attached in response to Question 19, which include figures that show	See Question 21 Attachment Q21a_Oil-Filled Equipment.pdf Also see all Question 19 Attachments

EPA Question	Response	Records/Information Available
	the location of oil filled equipment.	
Section 5.0 - Regulatory Information		
50. Identify all federal, state and local authorities that regulated the owner or operator of each Property and/or that interacted with the owner or operator of each Property. Your response is to address all interactions and in particular all contacts from agencies/departments that dealt with health and safety issues and/or environmental concerns.	The primary federal, state and local agencies that have regulated PGE at this Site include: • City of Portland (including fire, medical, and police): building safety inspections, facility enhancements, building demolitions/constructions, notification of spills • Oregon Department of Environmental Quality (DEQ): spills, product/waste disposal, facility enhancements • U.S. Environmental Protection Agency (USEPA): for Portland Harbor Superfund Site Resource Conservation and Recovery Act (RCRA), and Toxic Substances Control Act (TSCA) Regarding health and safety concerns, interaction with the following agencies would occur as a result of a compliance inspection, a consultation visit or during the course of an accident investigation (contact with the OPUC would occur if an accident of a certain severity occurred at a site): • Federal Occupational Safety and Health Administration (OSHA) • Oregon Occupational Safety and Health Administration (OrOSHA) • Oregon Public Utility Commission (OPUC) • Oregon Department of Transportation (ODOT) • Federal Energy Regulatory Commission (FERC) To the best of PGE's knowledge, after reasonable inquiry, other than a letter from City of Portland approving driveway construction in 1962, there are no records indicating correspondence or inspections specific to the Riverview Substation by these regulatory agencies.	Question 50 Attachment Q50_1962 COP Driveway Permit.pdf
51. Describe all occurrences associated with violations, citations, deficiencies. and/or accidents concerning each Property during the period being investigated related to health and safety issues and/or environmental concerns. Provide copies of all documents associated with each occurrence described.	To the best of PGE's knowledge, after reasonable inquiry, PGE has not had any environmental related violations/citations/deficiencies for the Riverview Substation. For spills/discharges, please see the response to Question 62. PGE maintains records of all OSHA accidents and injuries; however, the records are not categorized or searchable by property. To the best of PGE's knowledge, after reasonable inquiry, PGE does not know if any OSHA accidents/injuries have occurred that the Riverview Substation.	

EPA Question	Response	Records/Information Available
52. Provide a list of all local, state and federal environmental permits ever issued to the owner or operator on each Property (e.g., RCRA permits. NPDES permits, etc.). Please provide a copy of each federal and state permit, and the applications for each permit, ever issued to the owner or operator on each Property.	To the best of PGE's knowledge, after reasonable inquiry, the Riverview Substation does not have any environmental permits. Riverview Substation has a non-environmental permit issued for disposal of construction debris and non-hazardous excavated site material at the Hillsboro Landfill. This non-hazardous material permit is attached (Q52_Riverview_WAL_12-17-2004.pdf). The attached documents (Q52_01.pdf and Q52_02.pdf) are general PGE disposal permits, for which specific contributions from substations are not indicated. A component of the waste disposed under these permits may have originated from the Riverview Substation.	Question 52 Attachments Q52_01.pdf Q52_02.pdf Q52_Riverview_WAL_12-17-2004.pdf
53. Did the owner or operator ever file a Hazardous Waste Activity Notification under the RCRA? If so, provide a copy of such notification.	No Hazardous Waste Activity Notification was filed for the Riverview Substation. Hazardous materials from the Riverview Substation, if any, has been disposed of after interim storage at a PGE waste and material handling facility (e.g., the PSC). See the 104(e) response for Harborton Substation, which is within the Investigation Area and was historically a PGE waste and material handling facility, and the supplemental submittal of documentation from other PGE facilities that may have received waste and materials from the Riverview Substation (Supplemental Submittal S7).	
54. Did the owner or operator's facility on each Property ever have "interim status" under the RCRA? If so, and the facility does not currently have interim status; describe the circumstances under which the facility lost interim status.	Not applicable. No application for "interim status."	
55. Provide all RCRA Identification Numbers issued to Respondent by EPA or a state for Respondent's operations.	To the best of PGE's knowledge, after reasonable inquiry, no RCRA Identification Number has been issued for the Riverview Substation.	
56. Identify all federal offices to which Respondent has sent or filed hazardous substance or hazardous waste information. State the years during which such information was sent/filed.	To the best of PGE's knowledge, after reasonable inquiry, no hazardous substance or hazardous waste information has been sent to or filed with to any federal offices.	
57. Identify all state offices to which Respondent has sent or filed hazardous substance or hazardous waste	To the best of PGE's knowledge, after reasonable inquiry, no hazardous substance or hazardous waste information from the Riverview Substation has been sent to or filed with to any state offices.	

EPA Question	Response	Records/Information Available
information. State the years during which such information was sent/filed.	Hazardous materials from the Riverview Substation, if any, has been disposed of after interim storage at a PGE waste and material handling facility (e.g., the PSC). See the 104(e) response for Harborton Substation, which is within the Investigation Area and was historically a PGE waste and material handling facility, and the supplemental submittal of documentation from other PGE facilities that may have received waste and materials from the Riverview Substation (Supplemental Submittal S7).	
58. List all federal and state environmental laws and regulations under which Respondent has reported federal or state governments, including but not limited to: Toxic Substances Control Act, 15 U.S.C. Sections 2601 et seq., (TSCA); Emergency Planning and Community Right-to-Know Act, 42 U.S.C. Sections 1101 et seq., (EPCRA); and the Clean Water Act (the Water Pollution Prevention and Control Act), 33 U.S.C. Sections 1251 et seq., Oregon Hazardous Substance Remedial Action Law, ORS 465.315, Oregon Water Quality law, ORS Chapter 468(b), Oregon Hazardous Waste and Hazardous Materials law, ORS Chapters 465 and 466, or Oregon Solid Waste law, ORS Chapter 459. Provide copies of each report made, or if only oral reporting was required, identify the federal and state offices to which such report was made.	The federal and state environmental laws and regulations under which PGE has reported to federal and state governments relating to the Riverview Substation include the Oregon Solid Waste Law and the state fire code.	
59. Provide a copy of any registrations, notifications, inspections or reports required by the Toxic Substances Control Act, 15 USC § 2601 et seq., or state law, to be maintained or submitted to any government agency, including fire marshal(s), relating to PCB(s) or PCB(s) containing materials or liquids on any Property identified in response to Question 4.	Annual PCB reports (1978-2007) for PGE (all PGE sites combined) are maintained in compliance with record-reporting rule 40 CFR 761 and are provided in a supplemental submittal (Supplemental Submittal S3). The 2008 annual PCB report is not included in the supplemental submittal because it has not yet been completed.	

EPA Question	Response	Records/Information Available
60. Has Respondent or Respondent's contractors, lessees, tenants, or agents ever contacted, provided notice to, or made a repot to the Oregon Department of State Lands ("DSL") or any other state agency concerning an incident, accident, spill, release, or other event involving Respondent's leased state aquatic lands? If so, describe each incident, accident, spill, release, or other event and provide copies of all communications between Respondent or its agents and DSL or the other state agency and all documents that were exchanged between Respondent, its agents and DSL or other stale agency.	To the best of PGE's knowledge, after reasonable inquiry, no. The Riverview Substation is not adjacent to the Willamette River.	
61. Describe all notice or reporting requirements to DSL that you had under an aquatic lands lease or slate law or regulation regarding incidents affecting, or activities or operations occurring on leased aquatic lands. Include the nature of the matter required to be reported and the office or official to whom the notice or report went to. Provide copies of all such notices or reports.	To the best of PGE's knowledge, after reasonable inquiry, none. The Riverview Substation is not adjacent to the Willamette River.	
Section 6.0 - Releases and Remediation		
62. Identify all leaks, spills, or releases into the environment of any waste, including petroleum, hazardous substances, pollutants, or contaminants, that have occurred at or from each Property, which includes any aquatic lands owned or leased by Respondent. In addition, identify and provide copies of any documents regarding:	To the best of PGE's knowledge, after reasonable inquiry, the attached documents provide information describing the known leaks, spills, or releases into the environment at the Riverview Substation. The following summary incorporates all known and available information with respect to specific releases that have occurred at the Riverview Substation: • July 2, 2002 – Between 0.5 and 3 gallons of transformer oil with less than 15 ppm PCBs were released from a transformer at the Riverview Substation; see the attached document (Q62_2002-07-02_Spill Cleanup Log.pdf). The oil impacted approximately 10 square feet of concrete, soil, and gravel. Cleanup was performed by PGE's Maintenance Department and included the removal of impacted soil and gravel.	Question 62 Attachments Q62_2002-07-02_Spill Cleanup Log.pdf Q62_2005-12-12_600 SW Taylors Ferry.pdf See all Question 15 Attachments See Question 21 Attachment Q21c_Riverview_WA request_07-11-2002.pdf See Question 52 Attachment

EPA Question	Response	Records/Information Available
a. when such releases occurred; b. how the releases occurred (e.g. when the substances were being stored, delivered by a vendor, transported or transferred (to or from any tanks. drums, barrels, or recovery units). and treated); c. the amount of each hazardous substances, pollutants, or contaminants so released; d. where such releases occurred; e. any and all activities undertaken in response to each such release or threatened release, including the notification of any agencies or governmental units about the release; f. any and all investigations of the circumstances, nature, extent or location of each release or threatened release including, the results of any soil, water (ground and surface), or air testing undertaken; g. all persons with information relating to these releases; and h. list all local, state, or federal departments or agencies notified of the release, if applicable;	Approximately 1 barrel of soil, gravel, and absorbent materials was removed and disposed of at a Waste Management operated landfill; see the document (Q21c_Riverview_WA request_07-11-2002.pdf) attached in response to Question 21c. • November 2004 – Prior to upgrading the stormwater control and secondary spill containment system at the Riverview Substation, PGE characterized the soil for potential PCB and total petroleum hydrocarbon contamination. Based on the sample results (see the documents, Q15_11-30-2004_part a.pdf and Q15_11-30-2004_part b.pdf, attached in response to Question 15), PGE removed and disposed of approximately 300 tons of soil and debris at Hillsboro Landfill in December 2004. See the waste disposal permit (Q52_Riverview_WAL_12-17-2004.pdf) attached in response to Question 52. The PCB-contaminated soil and gravel was found around oil-filled equipment; this equipment had apparently leaked PCB-containing oil into the surrounding soil/gravel. To the best of PGE's knowledge, after reasonable inquiry, no specific spill or release has been identified that may have impacted these soils. • December 12, 2005 – Approximately 0.5 gallons of fuel from a Bobcat (mini hoe truck) were spilled in the gravel within Riverview Substation; see the attached document (Q62_2005-12-12_600 SW Taylors Ferry.pdf). The spill was reported to the PGE System Control Center, contained, and cleaned up (including the removal and disposal of contaminated gravel).	Q52_Riverview_WAL_12-17-2004.pdf
63. Was there ever a spill, leak, release or discharge of waste, including petroleum, or hazardous substances, pollutant or contaminant into any subsurface disposal system or floor drain inside or under a building on the Property? If the answer to the preceding question is anything but an unqualified "no", identify: a. where the disposal system or floor drains were located;	To the best of PGE's knowledge, after reasonable inquiry, there has been no disposal of or any spills, leaks, releases, or discharges of waste into a subsurface disposal system or floor drains at the Riverview Substation.	

EPA Question	Response	Records/Information Available
b. when the disposal system or floor drains were installed; c. whether the disposal system or floor drains were connected to pipes; d. where such pipes were located and emptied; e. when such pipes were installed; f. how and when such pipes were replaced. or repaired; and g. whether such pipes ever leaked or in any way released such waste or hazardous substances into the environment.		
64. Has any contaminated soil ever been excavated or removed from the Property? Unless the answer to the preceding question is anything besides an unequivocal "no", identify and provide copies of any documents regarding:		
a. amount of soil excavated;	In response to a release on July 2, 2002, approximately 10 square feet of soil and gravel was excavated. See the document (Q62_2002-07-02_Spill Cleanup Log.pdf) attached in response to Question 62. In November 2004, soil characterization sampling was conducted at the Riverview Substation prior to upgrading the stormwater control and secondary spill containment system. Based on the sampling results (see the documents, Q15_11-30-2004_part a.pdf and Q15_11-30-2004_part b.pdf, attached in response to Question 15), approximately 300 tons of soil and gravel was excavated from the vicinity of four samples that had detected PCB concentrations less than 1 ppm. See the document (Q52_Riverview_WAL_12-17-2004.pdf) attached in response to Question 52. In response to a fuel release from a Bobcat (mini hoe truck) on 12 December 2005, approximately 4 square feet of soil and gravel was excavated. See the document (Q62_2005-12-12_600 SW Taylors Ferry.pdf) attached in response to Question 62.	See Question 15 Attachments Q15_11-30-2004_part a.pdf Q15_11-30-2004_part b.pdf Also see Question 52 Attachments Q52_ Riverview_WAL_12-17-2004.pdf Also see Question 62 Attachments Q62_2002-07-02_Spill Cleanup Log.pdf Q62_2005-12-12_600 SW Taylors Ferry.pdf
b. location of excavation presented on a map or aerial photograph;	The soil and gravel removed in response to the transformer oil release on July 2, 2002 was located around the site's transformer, the location of which is depicted in he figure on page 9 of the SPCC Plan (Q19_Riverview_SPCC Plan.pdf) attached in response to Question 19. In November 2004, soil characterization sampling was conducted at the Riverview Substation prior to upgrading the stormwater control and secondary spill containment system. The figure in the document (Q15_11-30-2004_part b.pdf) attached in response to Question 15, shows the	See Question 15 Attachments Q15_11-30-2004_part a.pdf Q15_11-30-2004_part b.pdf Also see Question 19 Attachment Q19_Riverview_SPCC Plan.pdf

EPA Question	Response	Records/Information Available
	grid of the sampling locations, including the four locations (10, 15, 17, and 18) around which soil with detected PCB concentrations less than 1 ppm was excavated. Also see the document (Q15_11-30-2004_part a.pdf) attached in response to Question 15. To the best of PGE's knowledge, after reasonable inquiry, there are no maps, photographs, or figures that depict the location of the soil and gravel removed in response to the Bobcat (mini hoe truck) fuel release on 12 December 2005.	
c. manner and place of disposal and/or storage of excavated soil;	In response to a release on July 2, 2002, one barrel of petroleum hydrocarbon-contaminated soil/gravel/absorbent materials contaminated with approximately 14 ppm PCBs was removed from the Riverview Substation. The barrel was transported to Wilsonville, a PGE waste and material handling facility, on July 3, 2002 and was subsequently disposed of at a Waste Management operated landfill. See the document (Q21c_Riverview_WA request_07-11-2002.pdf) attached in response to Question 21c. Also see the document (Q62_2002-07-02_Spill Cleanup Log.pdf) attached in response to Question 62. In December 2004, approximately 300 tons of soil and debris was removed from the vicinity of four samples that had detected PCB concentrations less than 1 ppm and transported to the Hillsboro Landfill. See the waste disposal permit (Q52_Riverview_WAL_12-17-2004.pdf) attached in response to Question 52. According to the spill documentation (Q62_2005-12-12_600 SW Taylors Ferry.pdf) attached in response to Question 62, approximately 0.5 gallons of fuel from a Bobcat (mini hoe truck) were spilled in the gravel within Riverview Substation on 12 December 2005. The spill was reported to the PGE System Control Center, contained, and cleaned up (including the removal and disposal of contaminated gravel) To the best of PGE's knowledge, after reasonable inquiry, PGE was unable to locate further disposal documentation for this soil and gravel removal. To the best of PGE's knowledge, after reasonable inquiry, this soil and gravel was likely transported to a PGE waste and material handling facility (e.g., PSC or Wilsonville) for interim storage prior to disposal at the Hillsboro Landfill; see the document (Q21a_Waste Stream Summary.pdf) attached in response to Question 21a, Soil has been disposed of, as needed, in conjunction with various improvements/maintenance activities at the Site, as well as in response to equipment spills. Soils are tested and disposed properly. To the best of PGE's knowledge, after reasonable inquiry, PGE was unable to locate disposal documentation for soil removal other than those described above. See the documents attached in response to Question 21 and 52. Also see the annual PCB reports for PGE (all PGE sites combined) provided in a supplemental submittal.	See all Question 21 Attachments Also see all Question 52 Attachments Also see Question 62 Attachments Q62_2002-07-02_Spill Cleanup Log.pdf Q62_2005-12-12_600 SW Taylors Ferry.pdf
d. dates of soil excavation;	See the responses to Questions 64a, 64b, and 64c.	
e. identity of persons who excavated or removed the soil, if other than a contractor for Respondent;	To the best of PGE's knowledge, after reasonable inquiry, soil and gravel removals were performed by personnel from PGE's EM&C construction department. The PGE EM&C construction department foremen include Dan Loftin and Tim Danchok; other PGE EM&C personnel have changed over time.	
f. reason for soil excavation;	Soil excavation has occurred from construction activities, in response to equipment spills, and as a result of the soil characterization conducted prior to upgrading the stormwater control and secondary spill containment system in 2004.	

EPA Question	Response	Records/Information Available
g. whether the excavation or removed soil contained hazardous substances, pollutants or contaminants, including petroleum, what constituents the soil contained, and why the soil contained such constituents;	In response to a transformer oil release on July 2, 2002, one barrel of petroleum hydrocarbon-contaminated soil/gravel/absorbent materials with approximately 14 ppm PCBs was removed from the Riverview Substation. See the document (Q62_2002-07-02_Spill Cleanup Log.pdf) attached in response to Question 62. In December 2004, approximately 300 tons of soil and gravel with detected PCB concentrations less than 1 ppm. The PCB-contaminated soil and gravel was found around oil-filled equipment; this equipment had apparently leaked PCB-containing oil into the surrounding soil/gravel. According to the spill documentation (Q62_2005-12-12_600 SW Taylors Ferry.pdf) attached in response to Question 62, approximately 0.5 gallons of fuel from a Bobcat (mini hoe truck) were spilled in the gravel within Riverview Substation on 12 December 2005.	See Question 15 Attachments Q15_11-30-2004_part a.pdf Q15_11-30-2004_part b.pdf Also see Question 62 Attachments Q62_2002-07-02_Spill Cleanup Log.pdf Q62_2005-12-12_600 SW Taylors Ferry.pdf
h. all analyses or tests and results of analyses of the soil that was removed from the Property;	The soil and gravel removed in response to the transformer oil release on July 2, 2002 was not tested prior to disposal. The PCB concentration of the soil and gravel was based on the labeling of the transformer (< 15 pmm PCBs). See the document (Q62_2002-07-02_Spill Cleanup Log.pdf) attached in response to Question 62. The results for the soil and debris removed in response to the soil characterization sampling conducted in November 2004 are attached in response to Question 15 (see Q15_11-30-2004_part a.pdf and Q15_11-30-2004_part b.pdf). To the best of PGE's knowledge, after reasonable inquiry, PGE does not have any records of analyses or results of analyses for the soil removed in response to the fuel release from the Bobcat (mini hoe truck) on 12 December, 2005. See the document (Q62_2005-12-12_600 SW Taylors Ferry.pdf) attached in response to Question 62.	See Question 15 Attachments Q15_11-30-2004_part a.pdf Q15_11-30-2004_part b.pdf Also see Question 62 Attachments Q62_2002-07-02_Spill Cleanup Log.pdf Q62_2005-12-12_600 SW Taylors Ferry.pdf
i. all analyses or tests and results of analyses of the excavated area after the soil was removed from the Property; and	PGE was unable to locate any documents indicating that soil remaining in place was tested. In general, spills are cleaned up to remove all visible contamination plus 1 foot laterally. The soil removed for the substation expansion was tested to determine proper disposal.	
j. all persons, including contractors, with information about (a) through (i) of this request.	Multiple individuals have had authority within PGE to access and conduct activities on this property. These are listed on documents attached in response to Question 6g. Also see the documents attached in response to Question 38, for PGE personnel responsible for environmental matters from 1980 – present. Some soil removals were performed by personnel from PGE's EM&C construction department. The PGE EM&C construction department foremen include Dan Loftin and Tim Danchok; other PGE EM&C personnel have changed over time.	See all Question 6 Attachments Q06g_Bullseye articles.pdf Q06g_Organizational Charts.pdf Q06g_Distribution and System Planning Information.pdf Q06g_HRIC Structure Report 2008.pdf Q06g_HRIS Structure Info 1982-2007.pdf Also see all Question 38 Attachments
65. Have you ever tested the groundwater under your Property? If so, please provide copies of all data, analysis, and reports generated from such testing.	To the best of PGE's knowledge, after reasonable inquiry, groundwater under the Riverview Substation has not been tested.	

EPA Question	Response	Records/Information Available
66. Have you treated, pumped, or taken any kind of response action on groundwater under your Property? Unless the answer to the preceding question is anything besides an unequivocal "no", identify: a. reason for groundwater action; b. whether the groundwater contained hazardous substances, pollutants or contaminants, including petroleum, what constituents the groundwater contained, and why the groundwater contained such constituents; c. all analyses or tests and results of analyses of the groundwater; d. if the groundwater action has been completed, describe the basis for ending the groundwater action; and e. all persons, including contractors, with information about (a) through (c) of this request.	To the best of PGE's knowledge, after reasonable inquiry, PGE has not treated, pumped, or taken any kind of response action on groundwater under the Riverview Substation.	
67. Was there ever a spill, leak, release or discharge of a hazardous substance, waste, or material into the Willamette River from any equipment, structure, or activity occurring on, over, or adjacent to the river? If the answer to the preceding question is anything but an unqualified "no", identify: a. the nature of the hazardous substance, waste, or material spilled, leaked, released or discharged; b. the dates of each such occurrence; c. the amount and location of such release; d. were sheens on the river created by the release;	The Riverview Substation is not on, over, or directly adjacent to the Willamette River and there are no over-water structures. To the best of PGE's knowledge, after reasonable inquiry, there has never been a spill, leak, release, or discharge of a hazardous substance, waste, or material into the Willamette River from any equipment, structure, or activity occurring on, over, or adjacent to the river at the Riverview Substation.	

EPA Question	Response	Records/Information Available
e. was there ever a need to remove or dredge any solid waste, bulk product, or other material from the river as a result of the release? If so, please provide information and description of when such removal/dredging occurred, why, and where the removed/dredged materials were disposed.		
68. For any releases or threatened releases of PCB(s), identify the date, quantity, location and type of PCB(s) or PCB(s) containing materials or liquids, and the nature of any response to or cleanup of the release.	In response to a transformer release (of oil with < 15 ppm PCBs) on July 2, 2002, approximately 10 square feet of soil and gravel were excavated. The petroleum hydrocarbon-contaminated soil/gravel/absorbent materials with approximately 14 ppm PCBs were placed in a barrel and transported to Wilsonville, a PGE waste and material handling facility, on July 3, 2002. This waste was subsequently disposed of at a Waste Management operated landfill. See the document (Q62_2002-07-02_Spill Cleanup Log.pdf) attached in response to Question 62 and the document (Q21c_Riverview_WA request_07-11-2002.pdf) attached in response to Question 21c. Soil characterization sampling was conducted in November 2004, prior to upgrading the stormwater control and secondary spill containment system. A total of 28 samples were analyzed for PCBs and total petroleum hydrocarbons; see the documents (Q15_11-30-2004_part a.pdf and Q15_11-30-2004_part b.pdf) attached in response to Question 15. Four samples detected PCBs at concentrations less than 1 ppm (see Q15_11-30-2004_part a.pdf, attached). Based on these results, approximately 300 tons of soil and gravel in the vicinity of these four samples was disposed of at Hillsboro Landfill. See the document (Q52_Riverview_WAL_12-17-2004.pdf) attached in response to Question 52. In general, PGE replaces PCB-containing or potentially PCB-containing oil-filled equipment (e.g., transformers, capacitors, circuit breakers, bushings, and step regulators) with non-PCB containing equipment (< 50 ppm PCBs) as they are removed from service. The primary materials that may have been used for equipment maintenance at PGE substations include dielectric fluids (oil) and transformer oil, which may have historically contained PCBs. To the best of PGE's knowledge, after reasonable inquiry, other than minor repairs, electrical equipment maintenance was generally not performed onsite. Instead, equipment was taken out of service and transported to PGE's waste and material handling facility for repairs and retrofitting. The document (Q21a_Oil Filled Equipment.pdf) attached in response to Question 21a does not identify any oil-filled equipment with PCB concentrations currently exceeding 50 ppm. Several pieces of the oil-filled equipment are assumed to contain less than 1 ppm PCBs because they were manufactured after 1978. Also see the annual PCB reports (1978-2007) for PGE (all PGE sites combined), which are provided in a supplemental submittal (Supplemental Submittal S3).	See Question 15 Attachments Q15_11-30-2004_part a.pdf Q15_11-30-2004_part b.pdf Also see Question 21 Attachment Q21a_Oil Filled Equipment.pdf Q21c_Riverview_WA request_07-11-2002.pdf Also see Question 52 Attachments Q52_ Riverview_WAL_12-17-2004.pdf Also see Question 62 Attachment Q62_2002-07-02_Spill Cleanup Log.pdf

EPA Question	Response	Records/Information Available
69. For any releases or threatened releases of PCB(s) and/or PCB(s) containing materials or liquids, identify and provide copies of any documents regarding the quantity and type of waste generated as a result of the release or threatened release, the disposition of the waste, provide any reports or records relating to the release or threatened release, the response or cleanup and any records relating to any enforcement proceeding relating to the release or threatened release. Provide all documentation regarding, but not limited to, the following releases:	In response to a transformer oil release on July 2, 2002, one barrel of petroleum hydrocarbon-contaminated soil/gravel/absorbent materials with approximately 14 ppm PCBs was removed from the Riverview Substation. See document (Q62_2002-07-02_Spill Cleanup Log.pdf) attached in response to Question 62 and the document (Q21c_Riverview_WA request_07-11-2002.pdf) attached in response to Question 21c. Soil characterization sampling was conducted in November 2004 prior to upgrading the stormwater control and secondary spill containment system. A total of 28 samples were analyzed for PCBs and total petroleum hydrocarbons; see the documents (Q15_11-30-2004_part a.pdf and Q15_11-30-2004_part b.pdf) attached in response to Question 15. Four samples detected PCBs at concentrations less than 1 ppm (see Q15_11-30-2004_part a.pdf, attached). Based on these results, approximately 300 tons of soil and gravel in the vicinity of these four samples was disposed of at Hillsboro Landfill. See the document (Q52_Riverview_WAL_12-17-2004.pdf) attached in response to Question 52. Also see the responses to Question 62 and 68.	See Question 15 Attachments Q15_11-30-2004_part a.pdf Q15_11-30-2004_part b.pdf Also see Question 21 Attachment Q21c_Riverview_WA request_07-11-2002.pdf Also see Question 52 Attachments Q52_ Riverview_WAL_12-17-2004.pdf Also see Question 62 Attachment Q62_2002-07-02_Spill Cleanup Log.pdf
a. a May 20, 1988 release of 20 gallons of 400 parts per million PCB transformer oil; b. a February 9, 1995 release of 5 gallons of oil that spilled from a bushing on the ground; c. a February 24, 1997 release of 20 gallons of 19 parts per million PCB transformer oil onto the ground, and; d. a July 25, 1997 release of 3 gallons of less than 5 parts per million PCB oil from a break on the ground, and;. e. a December 4, 1997 release of 40 gallons of cable oil onto the ground following vandalism at the Harborton substation.	Not applicable. Questions 69a through 69e are not relevant to the Riverview Substation. Information regarding these investigations is provided in the 104(e) response for the Harborton Substation.	
Section 7.0 - Property Investigations		
70. Provide information and documentation concerning all inspections, evaluations, safety audits, correspondence and any other documents associated with the	To the best of PGE's knowledge, after reasonable inquiry, no insurance or coverage-related health and safety inspections, evaluations, audits, or correspondence were prepared for this location. The attached documents relate to general fire, flood, wind and, earthquake inspections. An	Question 70 Attachment Q70_FM Global Substation Review.pdf

EPA Question	Response	Records/Information Available
conditions, practices, and/or procedures at the Property concerning insurance issues or insurance coverage matters.	engineer from PGE's office of Facilities Management (FM) conducts several inspections a year at most PGE locations. The engineer will do a complete walk through each facility looking for fire hazards and will issue a recommendation when a problem is found. Along with these inspections, the fire protection systems and equipment are checked and usually functionally tested. There are locations that are inspected by FM which do not require the issuing of an inspection report. These locations are small substations where there are only pressure vessels located on the system circuit breakers. This inspection is required by the State of Oregon. Following the inspection, the inspector will send his report to the State so they can keep up to date on the condition of PGE pressure vessels. Copies of PGE's relevant general liability insurance policies are provided in a supplemental submittal (Supplemental Submittal S4).	
71. Describe the purpose for, the date of initiation and completion, and the results of any investigations of soil, water (ground or surface), sediment, geology, and hydrology or air quality on or about each Property, Provide copies of all data, reports, and other documents that were generated by you or a consultant, or a federal or state regulatory agency related to the investigations that are described.	Soil characterization sampling was conducted in November 2004, prior to upgrading the stormwater control and secondary spill containment system. A total of 28 samples were analyzed for PCBs and total petroleum hydrocarbons; see the documents (Q15_11-30-2004_part a.pdf and Q15_11-30-2004_part b.pdf) attached in response to Question 15. Four samples detected PCBs at concentrations less than 1 ppm (see Q15_11-30-2004_part a.pdf, attached). Based on these results, the soil and gravel in the vicinity of these four samples was disposed of at Hillsboro Landfill in December 2004. See the document (Q52_Riverview_WAL_12-17-2004.pdf) attached in response to Question 52. The SPCC Plan (Q19_Riverview_SPCC.pdf), attached in response to Question 19, briefly discusses topography and soil condition at the Riverview Substation. To the best of PGE's knowledge, after reasonable inquiry, the attached documents include all the data reports PGE was able to locate for the Riverview Substation related to soil, water (ground and surface), or air quality and geology/hydrogeology	See Question 15 Attachments Q15_11-30-2004_part a.pdf Q15_11-30-2004_part b.pdf Also see Question 19 Attachment Q19_Riverview_SPCC.pdf Also see Question 52 Attachment Q52_Riverview_WAL_12-17-2004.pdf
a. a May 20, 1988 release of 20 gallons of 400 parts per million PCB transformer oil;		
b. a February 9, 1995 release of 5 gallons of oil that spilled from a bushing on the ground;		
c. a February 24, 1997 release of 20 gallons of 19 parts per million PCB transformer oil onto the ground, and;	Not applicable. Questions 71a through 71e are not relevant to the Riverview Substation. Information regarding these investigations is provided in the response for the Harborton Substation.	
d. a July 25, 1997 release of 3 gallons of less than 5 parts per million PCB oil from a break on the ground, and;.		
e. a December 4, 1997 release of 40 gallons of cable oil onto the ground		

EPA Question	Response	Records/Information Available
following vandalism at the Harborton substation.		
72. Describe any remediation or response actions you or your agents or consultants have ever taken on each Property either voluntarily or as required by any state or federal agency. If not otherwise already provided under this Information Request, provide copies of all investigations, risk assessments or risk: evaluations, feasibility studies, alternatives analysis, implementation plans, decision documents, monitoring plans, maintenance plans, completion reports, or other document concerning remediation or response actions taken on each Property.	To the best of PGE's knowledge, after reasonable inquiry, the following presents a summary of known remedial activities at the site: In response to a transformer oil release on July 2, 2002, one barrel of petroleum hydrocarbon-contaminated soil/gravel/absorbent materials with approximately 14 ppm PCBs was removed from the Riverview Substation. See document (Q62_2002-07-02_Spill Cleanup Log.pdf) attached in response to Question 62 and the document (Q21c_Riverview_WA request_07-11-2002.pdf) attached in response to Question 21c. Soil characterization sampling was conducted in November 2004, prior to upgrading the stormwater control and secondary spill containment system. A total of 28 samples were analyzed for PCBs and total petroleum hydrocarbons; see the documents (Q15_11-30-2004_part a.pdf and Q15_11-30-2004_part b.pdf) attached in response to Question 15. Four samples detected PCBs at concentrations less than 1 ppm (see Q15_11-30-2004_part a.pdf, attached). Based on these results, approximately 300 tons of soil and gravel in the vicinity of these four samples was disposed of at Hillsboro Landfill in December 2004. See the document (Q52_Riverview_WAL_12-17-2004.pdf) attached in response to Question 52. In response to a Bobcat (mini hoe truck) fuel release on 12 December, 2005, approximately 4 square feet of soil and gravel were removed from the Riverview Substation. See the document (Q62_2005-12-12_600 SW Taylors Ferry.pdf) attached in response to Question 62. The spill was reported to the PGE System Control Center, contained, and cleaned up (including the removal and disposal of contaminated gravel). Asbestos surveys were conducted at the Riverview Substation in 1997 and 2006. See the attached asbestos surveys (Q72_1997 Riverview Asb Sur.pdf and Q72_Riverview 2006 Asb Sur.pdf). The 2006 asbestos survey noted that caulk on the metal house may contain asbestos. The caulking was not tested for asbestos, and to date, no action has been taken.	Question 72 Attachments Q72_Riverview 2006 Asb Sur.pdf Q72_1997 Riverview Asb Sur.pdf Also see Question 15 Attachments Q15_11-30-2004_part a.pdf Q15_11-30-2004_part b.pdf Also see Question 21 Attachment Q21c_Riverview_WA request_07-11-2002.pdf Also see Question 52 Attachment Q52_Riverview_WAL_12-17-2004.pdf Also see Question 62 Attachment Q62_2002-07-02_Spill Cleanup Log.pdf
73. Are you or your consultants planning to perform any investigations of the soil, water (ground or surface), geology, and hydrology or air quality on or about the Property? If so, identify:	No future investigations for this site are planned. Soil confirmation sampling may be conducted in the future, after cleanup of small spill events and general operational activities (e.g., removal, updates, maintenance) on an as needed basis.	
a. what the nature and scope of these investigations will be;		
b. the contractors or other persons that will undertake these investigations;		
c. the purpose of the investigations;		

EPA Question	Response	Records/Information Available
d. the dates when such investigations will take place and be completed; and		
e. where on the Property such investigations will take place.		
Section 8.0 - Corporate Information		
74. Provide the following information, when applicable, about you and/or your business(es) that are associated with each Property identified in response to Question 4:	Responses and documents for Section 8.0 – Corporate Information for all PGE sites are provided in a supplemental submittal (Supplemental Submittal S1).	
a. state the current legal ownership structure (e.g.. corporation, sole proprietorship);		
b. state the names and current addresses of all current and past owners of the business entity or, if a corporation, current and past officers and directors;		
c. discuss all changes in the business' legal ownership structure, including any corporate successorship, since the inception of the business entity. For example, a business that starts as a sole proprietorship, but then incorporates after a few years, or a business that is subsequently acquired by and merged into a successor. Please include the dates and the names of all parties involved;		
d. the names and addresses of all current or past business entities or subsidiaries in which you or your business has or had an interest that have had any operational or ownership connection with the Properties identified in response to Question 4. Briefly describe the business activities of each such identified business entities or subsidiaries; and		

EPA Question	Response	Records/Information Available
e. if your- business formerly owned or operated a Property identified in response to Question 4, describe any arrangements made with successor owners or operators regarding liability for environmental contamination or property damage.		
75. List all names under which your company or business has ever operated and has ever been incorporated. For each name, provide the following information:		
a. whether the company or business continues to exist, indicating the date and means by which it ceased operations (e.g., dissolution, bankruptcy, sale) if it is no longer in business;		
b. names, addresses, and telephone numbers of all registered agents, officers and operations management personnel; and		
c. names, addresses, and telephone numbers of all subsidiaries, unincorporated divisions or operating units, affiliates, and parent corporations if any, of the Respondent.		
d. all information requested in (a) through (c) above regarding, but not limited to, the following entities and including their relationship to Respondent (e.g. whether these entities are business partners, separate entities, subsidiaries, and/or aliases etc. of Respondent):		
i. V & K Service, Inc.; and		
ii. Jinkz Corp.		

EPA Question	Response	Records/Information Available
76. Provide all copies of the Respondent's authority to do business in Oregon. Include all authorizations, withdrawals, suspensions and reinstatements.		
77. If Respondent is, or was at any time, a subsidiary of, otherwise owned or controlled by, or otherwise affiliated with another corporation or entity, then describe the full nature of each such corporate relationship, including but not limited to:		
a. a general statement of the nature of relationship, indicating whether or not the affiliated entity had, or exercised, any degree of control over the daily operations or decision-making of the Respondent's business operations at the Site;		
b. the dates such relationship existed;		
c. the percentage of ownership of Respondent that is held by such other entity(ies);		
d. for each such affiliated entity provide the names and complete addresses of its parent, subsidiary, and otherwise affiliated entities, as well as the names and addresses of each such affiliated entity's officers, directors, partners, trustees, beneficiaries, and/or shareholders owning more than five percent of that affiliated entity's stock;		
e. provide any and all insurance policies for such affiliated entity(ies) which may possibly cover the liabilities of the Respondent at each Property; and		

EPA Question	Response	Records/Information Available
f. provide any and all corporate financial information of such affiliated entities, including but not limited to total revenue or total sales, net income, depreciation, total assets and total current assets, total liabilities and total current liabilities, net working capital (or net current assets), and net worth.		
g. all information requested in (a) through (f) above regarding, if applicable, but also explain any corporate or financial relationship Respondent may have had or has with the Enron Corporation.		
78. If Respondent is a partnership, please describe the partnership and provide a history of the partnership's existence. Provide a list of all current and past partners of any status (e.g., general, limited, etc.) and provide copies of all documents that created, govern, and otherwise rules the partnership, including any amendments or modifications to any of the originals of such documents, and at least five years of partnership meeting minutes.		
Section 9.0 - Compliance With This Request		
79. Describe all sources reviewed or consulted in responding to this request, including, but not limited to:		
a. the name and current job title of all individuals consulted;	Ron Parr, Facility Management Supervisor Bob Millican, Facility Management Specialist Randy Nicolay, Facility Management Specialist Dave VanBossuyt; Distribution Administration Manager Mark Cooksey, IT Client Services Manager Laura Holgate, Power Supply Eng Services Supervisor Jeddy Beasley, Transportation Services Manager Jayne Allen, Environmental Services Specialist Arya Behbehani-Divers, Environmental Services Manager	Question 79 Attachment Q79a_PdxHarbor Contact Information Rev.pdf

EPA Question	Response	Records/Information Available
	Brandy Horn, Environmental Services Specialist Mike Livingston, Property Services Manager Tim Calhoun, Network Communications Supervisor – retired Mike Schwartz, Power Supply Eng Services General Manager Rand Sherwood, Utility Services Manager Tom Stodd, Environmental Services Specialist Bob Lazrine Special Tester Forman Sid Hiller – Manager Kristina Rodgers – Assistant Debby Klinger – Specialist Chuck McCartney – Specialist Alma McGloghlon – Analyst Larry Morgan – Supervisor Gwen Williams - Manager In addition, the attached document contains additional sources consulted for responses to selected questions.	
b. the location where all sources reviewed are currently reside; and	PGE's Office at: 121 SW Salmon, 1WTC1302, Portland, Oregon 97204. Records are contained in the Facilities Management Departments, the Human Resources Department, and in the Corporate Records Information System (CRIS) database. In addition, the Hawthorne Retiree Museum contains the following: • The History of Portland General Electric Company, 1889 - 1981 • Electrifying Eden by Craig Wollner The History of Portland General Electric Company, 1989 - 1981 is attached in response to Question 77, which is part of the Supplemental Submittal S1. A hardcopy of Electrifying Eden is provided in a separate submittal.	
c. the date consulted.	Work on this information request was performed from February 2008 through March 2009.	
80. If not already provided, identify and provide a last known address or phone number for all persons, including Respondent's current and former employees or agents, other than attorneys, who have knowledge or information about the generation, use, purchase, storage, disposal, placement, or other handling of hazardous materials at, or transportation of hazardous substances, waste, or materials to or from each Property identified in response to Question 4.	Riverview Substation is an unmanned substation, requiring only periodic maintenance and monthly inspections. See responses to Questions 2, 6g, 38, 21, 40, and 79.	See all Question 6 Attachments Q06g_Bullseye articles.pdf Q06g_Organizational Charts.pdf Q06g_Distribution and System Planning Information.pdf Q06g_HRIC Structure Report 2008.pdf Q06g_HRIS Structure Info 1982-2007.pdf Also see all Question 21 Attachments Also see all Question 38 Attachments Also see Question 79 Attachment Q79a_PdxHarbor Contact Information Rev.pdf

EPA Question	Response	Records/Information Available
81. If any of the documents solicited in this information request are no longer available, please indicate the reason why they are no longer available. If the records were destroyed, provide us with the following;	PGE Records Management Services (RMS) provides a uniform records management program for the company. The program includes the Corporate Records Information System (CRIS) an online application used by departments to identify, index and manage their records. RMS also provides records storage and retrieval and document imaging services. RMS can investigate why records are no longer available if we know which records are being sought. Knowing the date, originator and subject of the records in question are essential to determine their availability or their ultimate disposition. Each unique record category is identified in CRIS and assigned a file pattern code (file category). Information about each file category includes the office of record (originator), and retention requirements and regulatory citations – who requires the record to be kept and for how long. The PGE records program and records retention schedule comply with the recordkeeping requirements of the Oregon Public Utility Commission (PUC) and Federal Energy Regulatory Commission (FERC). State and federal guidelines require us to identify which records PGE produces and how and for how long those records will be retained. PGE Policy requires that records should not be destroyed before, or kept after, meeting retention requirements. Consequently, PGE regularly destroys records in the normal course of business, and when legally required to do so. Such destructions are approved by the PGE Records Retention Committee and authenticated and recorded by RMS. How long a particular type of record is retained is based on operating needs, legal and regulatory requirements and, in a few cases, historical or archival value.	
a. the document retention policy between 1937 and the present;	RMS was created in 1977 and we can provide PGE's records management guidelines from 1977 to the present. Prior to that time records management was the responsibility of each functional area, plant or division office. Accounting records were kept in compliance with 18 CFR Part 125, Regulations to Govern the Preservation of Records of Public Utilities and Licensees (1972), issued by the Federal Power Commission (now FERC) and NARUC, the Nat'l Assoc. of Regulatory Utility Commissioners.	
b. the approximate date of destruction;	See response to Question 81a, above. Since it was established (c. 1977) RMS has maintained a hardcopy or microfilm record of boxes of records destroyed in the normal course of business, if those records were turned over to RMS custodianship. To know *when* a record was destroyed, it is necessary to know the record category, the approximate date of creation, and which department created it. It should be noted that the level of detail of information about the	

EPA Question	Response	Records/Information Available
	records destroyed is the same as that used to identify the records when they were sent to storage.	
c. a description of the type of information that would have been contained in the documents;	See response to Question 81b, above. RMS can help discern what records were typically filed in a particular file category. If similar records from that era exist they may show what information was captured by the documents. For example, a typical "job" form from 1980 would include much the same information listed on a similar job form from 1940, i.e., the work location, equipment used, labor hours, parts, drawings, etc.	
d. the name, job title and most current address known by you of the person(s) who would have produced these documents; the person(s) who would have been responsible for the retention of these documents; the person(s) who would have been responsible for destroying the documents; and the person(s) who had and/or still have the originals or copies of these documents; and	RMS is responsible for all records sent to the records center from 1977 to present, including ultimate disposition of those records. Records of documents destroyed include the names of the originator, authorizations for destruction (signatures) and the name of the person who physically destroyed or recycled the documents. Individual Responsibility Center (RC) managers are and would have been responsible for maintaining and disposing all other records, i.e., those that were not sent to the archives.	
e. the names and most current addresses of any person(s) who may possess documents relevant to this inquiry.	RMS can provide printed reports from the CRIS of existing records related to the request (that have been entered into CRIS by the originating RC). CRIS shows the names of all departments using the system for managing their records, what categories of records are maintained and where the records are filed (in the department or the records storage center). On request, RMS can provide a list of all RCs that use the CRIS system. This report would show each RC's file plan by document type (or subject) and the types of documents that should be filed under those headings.	
82. Provide a description of all records available to you that relate to all of the questions in this request, but which have not been included in your responses.	Multiple key word searches were performed in PGE's CRIS system. No date restrictions were placed on the searches. The results from each key word search were printed from the CRIS system with either a list of record titles or a "There are no entities to display" message. The "There are no entities to display" message means that based on the search query no records were found. Individual CRIS printouts are available upon request but provide no additional information. Documents not included in this request are: • Documents describing other PGE sites • PGE internal emails, correspondences, documents not specifically relevant to these questions • Documents determined to be Attorney-Client privileged, which are identified on the comprehensive privilege log that will be submitted with the final set of responses. • Duplicate documents/figures • Two General Information Documents – Theory on Sand Berms and Theory on Oil Spill Containment Products • Database of OSHA reportable accidents/injuries for PGE properties in Oregon	